RESEARCH & REVIEWS IN EDUCATIONAL SCIENCES

MAY, 2021

EDİTÖRLER

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İmtiyaz Sahibi / Publisher • Yaşar Hız
Genel Yayın Yönetmeni / Editor in Chief • Eda Altunel
Kapak & İç T asarım / Cover & Interior Design • Gece Kitaplığı
Editörler / Editors • Prof. Dr. Şehriban Koca
Assoc. Prof. Dr. Güneş SALI
Assoc. Prof. Dr. Çiğdem Kan
Birinci Basım / First Edition • © Mayıs 2021
ISBN • 978-625-7411-71-4

Gece Kitaplığı / Gece Publishing
Türkiye Adres / Turkey Address: Kızılay Mah. Fevzi Çakmak 1. Sokak Ümit Apt. No: 22/A Çankaya / Ankara / TR
Telefon / Phone: +90 312 384 80 40
web: www.gecekitapligi.com
e-mail: gecekitapligi@gmail.com

Baskı & Cilt / Printing & Volume
Sertifika / Certificate No: 47083

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CONTENTS

Chapter 1

THE PREDICTIVE POWER OF PLAY BEHAVIORS IN EARLY CHILDHOOD PERIOD ON SOCIAL COMPETENCE BEHAVIORS

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Introduction

In early childhood, peers play an important role in expanding children's social network and increasing learning experiences. Establishing positive social relationships with their peers and organizing their emotions according to the conditions of the environment enables children to become socially competent (Çorapçı, Aksan, Arslan-Yalçın, & Yağmurlu, 2010; Veiga et al., 2017). Children's participation in the peer group during this period is effective in increasing their social competence (Creasey, Jarvis, & Berk, 1998; Ladd, 1999). Social competence includes the ability of children to initiate and maintain satisfactory, mutual relationships with their peers (Katz & McClellan, 1991). Therefore, children's peer acceptance and the ability to maintain mutual friendships are important indicators of social competence (Denham et al., 2003). While positive peer interaction helps the development of children's social skills, negative peer interaction can trigger children to display aggressive behaviors or to experience loneliness (Rubin, Bukowski, & Parker, 2006). Briefly, social competence is based on interpersonal relationships established between children (Denham, 2007).

Play is the most important learning opportunity to support children's social competence in early childhood (Veiga et al., 2017). Children can display many social competence behaviors in a play setting (Metin Aslan, 2017). Play reflects social competence in the peer group (Creasey et al., 1998). While some children show social competence traits in their plays, some show features of being aggressive or timid (Calkins, Gill, Johnson, & Smith, 1999). Therefore, play behaviors provide important clues about children's interaction and communication with their peers (Magdalena, 2015), and they are in constant interaction with their social competence behavior (Uyanık, Arslan Çiftçi, Ünsal, Kılıç, & Değirmenci, 2018).

Different forms of play may have different functions during the development of children's social competence (Frost, Wortham, & Reifel, 2012). In this context, there are various studies in the literature showing that children's play behavior is an important predictor of non-social externalization (anger-aggression) and internalization (anxiety-withdrawal) behaviors as well as their social behaviors (social competence) (Asik-Ozturk, Ahmetoglu, & Acar, 2019; Fantuzzo, Sekino, & Cohen, 2004; Farmer-Dougan & Kaszuba, 1999; Gagnon & Nagle, 2004; Gülay Ogelman & Erten Sarıkaya, 2014; Metin Aslan, 2020; Newton & Jenvey, 2011; Veiga et al., 2017). This research was designed to determine which play behavior of children predicts their social competencies. However, unlike the scales or observation forms used to determine children's play behaviors in the above-mentioned studies, a different assessment instrument was used in this study. The most fundamental reason for this

is that although some of the assessment instrument adaptations have been made for children in Turkey, they have not been developed on children in Turkey. Although play has universal values, the meanings and evaluations of play behavior are shaped according to cultural values and socialization purposes (Metin Aslan, 2020). For this reason, a scale in which the types of play that is suitable for Turkish culture and reflect the different types of social and non-social interactions that occur during children's plays were chosen in the study (Metin Aslan, 2017).

In the light of all this information, the relationship between children's play behavior and social competences was examined in the study. Besides, play behaviors and social competence behaviors versus non-social anger-aggression and anxiety-withdrawal behaviors were also examined. In the study, the answer to the question, "Do children's play behavior predict anger-aggression and anxiety-withdrawal as well as children's social competence?" was sought.

Method

Participants

The study group of the research was composed of 311 children from 36-71 months (n_{girl}= 161, 51.8% – n_{boy}= 150, 48.2%) attending preschool education institutions affiliated to the state in Ankara, the capital of Turkey. 42 children (13.5%) were 36-48 months old, 157 children (50.5%) were 49-60 months old, and 112 children (36.0%) were 61-71 months old.

Data collection tools

In this study, "Play Behavior Scale for 36-71 month-old children" and "Social Competence and Behavior Evaluation Scale-30 (SCBE-30)" were used to collect data.

Play Behavior Scale for 36-71 Month-Old Children

The scale was developed by Metin Aslan (2017) to evaluate the play behaviors of children aged 36-71 months. The 5-point Likert type scale consists of five sub-dimensions as reticence behavior, solitary play, parallel play, social play, rough tumble play and 21 items in total. The scale is scored by the child's teacher. The Cronbach's Alpha reliability coefficient of the sub-dimensions of the scale was determined as .92 for reticence behavior, .84 for solitary play, .89 for parallel play, .90 for social play, and .96 for rough tumble play. In this study, the Cronbach's Alpha coefficients were respectively calculated as .87, .68, .88, .90, and .94.

Social Competence and Behavior Evaluation Scale-30 (SCBE-30)

The scale developed by La Freniere and Dumas (1996) was adapted to Turkish by Çorapçı et al. (2010). The scale is used to evaluate the quantity of the emotional and behavioral problem symptoms such as anger-aggression and anxiety-withdrawal that children may show in the preschool period and the quantity of social skills expected to develop in this period. The 6-point Likert type scale consists of three sub-dimensions as social competence, anger-aggression, anxiety-withdrawal, and a total of 30 items. The scale is scored by the child's teacher or parent. The Cronbach's Alpha coefficients for the social competence, anger-aggression, anxiety-withdrawal sub-dimensions of the scale were found as .88, .87, and .84, respectively. In this study, the Cronbach's Alpha coefficients were respectively calculated as .90, .88, and .86.

Data Collection Process

After the permissions were obtained from the researchers for the use of the scales, Ankara Provincial Directorate of National Education was also consulted in order to get necessary permission for the research, and approval was taken with decree no. and date of 19/12/2018-24515241. Teachers who volunteered to participate in the study were asked to sign the informed consent form. The applications were carried out with 165 preschool teachers in 28 schools. The teachers filled out the scales for two children that they randomly selected, one girl and one boy. However, as a result of the feedback, the data that were found to be deficient in the scales were removed. The research included data of 311 children.

Data Analysis

Multiple regression analysis was used within the scope of this research, and some assumptions regarding this were checked (Table 1).

Table 1

Assumptions Values of Multiple Regression

Variables	Skewness	Kurtosis	Durbin-Watson	Tolerance	VIF
Reticence behavior	1.174	1.056	-	.527	1.898
Solitary play	.365	.043	-	.445	2.246
Parallel play	.110	-.481	-	.554	1.804
Social play	-.548	-.234	-	.711	1.406
Rough tumble play	.865	-.403	-	.970	1.031
Social competence	-.367	-.579	1.564	-	-
Anger-Aggression	.973	.609	1.646	-	-
Anxiety-Withdrawal	1.202	1.106	1.981	-	-

First of all, the assumption of normality was examined according to the coefficients of skewness and kurtosis. A value between ± 2 for skewness and kurtosis means that the data show a normal distribution (George & Mallery, 2016). Therefore, the scores obtained from the variables show a normal distribution. As another assumption, the Durbin-Watson value was examined for the absence of a relationship between error terms, that is, not having autocorrelation. This value is expected to be between 1 and 3, especially close to 2 (Field, 2018). This assumption was met since the obtained values did not show autocorrelation. Finally, the correlation, tolerance and VIF values were checked for the assumption of multiple linearity among the independent variables. The high correlation between the independent variables (.90 and above) and the tolerance value less than .10 and the VIF value more than 10 indicate the multiple linearity problem (Pallant, 2016). This assumption was also met as a result of both the correlation values between the independent variables (Table 2) and the tolerance and VIF values.

Results

Table 2

Correlation Matrix of Variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.
1. Reticence behavior	1.00	.540**	.306**	-.490**	.060	-.513**	.272**	.563**
2. Solitary play		1.00	.651**	-.138*	.040	-.206**	.206**	.385**
3. Parallel play			1.00	.036	.115*	-.070	.201**	.293**
4. Social play				1.00	.080	.564**	-.070	-.343**
5. Rough tumble play					1.00	-.315**	.614**	-.006
6. Social competence						1.00	-.435**	-.465**
7. Anger-Aggression							1.00	.270**
8. Anxiety-Withdrawal								1.00

**p<.01, *p<.05

Since the scores from both scales showed normal distribution, the relationship between play behaviors and social competence behaviors was examined by calculating the Pearson correlation coefficient.

Various relationships were found between the Play Behavior Scale sub-dimensions and the SCBE-30 sub-dimensions. There is a positive relationship between reticence behavior and anxiety-withdrawal (r= .56, p<.01) and anger-aggression (r= .27, p<.01), and a negative relationship with social competence (r= -.51, p<.01). Similarly, there is a positive relationship between solitary play and anxiety-withdrawal (r= .39, p<.01) and anger-aggression (r= .21, p<.01), and a negative relationship with social competence (r= -.21, p<.01). There is a positive relationship between parallel play and anxiety-withdrawal (r= .29, p<.01) and anger-

aggression (r= .20, p<. 01). There is a positive relationship between social play and social competence (r= .56, p<.01), and a negative relationship with anxiety-withdrawal (r= -.29, p<.01). There is a positive relationship between rough tumble play and anger-aggression (r= .61, p<.01), and a negative relationship with social competence (r= -.32, p<.01).

Table 3

Multiple Regression Analysis of Social Competence

Model	B	SE	β	t	p
Constant	37.255	2.684	-	13.879	.000
Reticence behavior	-.751	.149	-.281	-5.051	.000
Solitary play	-.025	.206	-.007	-.120	.904
Parallel play	.100	.125	.044	.805	.421
Social play	.991	.105	.451	9.423	.000
Rough tumble play	-1.518	.184	-.338	-8.256	.000
R= .709	R^2= .503				
F(5, 305)= 61.816	p<.001				

Model was significant according to Table 3, F(5, 305)= 61.816, p<.001; R^2= .50. This model explained 50% of the variance in social competence. The order of importance of the variables that significantly predicted social competence was as follows: social play (β= .45), rough tumble play (β= -.34), reticence behavior (β= -.28). Social play predicts social competence positively, while rough tumble play and reticence behavior predict social competence negatively. Solitary play and parallel play are not meaningful predictors of social competence.

Table 4

Multiple Regression Analysis of Anger-Aggression

Model	B	SE	β	t	p
Constant	6.291	2.386	-	2.636	.009
Reticence behavior	.413	.132	.185	3.125	.002
Solitary play	.148	.183	.052	.810	.418
Parallel play	.082	.111	.043	.738	.461
Social play	-.039	.094	-.021	-.417	.677
Rough tumble play	2.239	.163	.597	13.696	.000
R=.662	R^2= .438				
F(5, 305)= 47.464	p<.001				

Model was significant according to Table 4, $F(5, 305)= 47.464$, $p<.001$; $R^2= .44$. This model explained 44% of the variance in anger-aggression. The order of importance of the variables that significantly predicted anger-aggression was as follows: rough tumble play (β= .60), reticence behavior (β= .19). Both of them positively predict anger-aggression. Solitary play, parallel play and social play are not meaningful predictors of anger-aggression.

Table 5

Multiple Regression Analysis of Anxiety-Withdrawal

Model	B	SE	β	t	p
Constant	11.351	2.394	-	4.741	.000
Reticence behavior	.914	.133	.439	6.890	.000
Solitary play	.107	.184	.040	.584	.560
Parallel play	.253	.111	.141	2.275	.024
Social play	-.211	.094	-.124	-2.252	.025
Rough tumble play	-.140	.164	-.040	-.853	.394
R=.589	R^2=.347				
F(5, 305)=32.387	p<.001				

Model was significant according to Table 5, $F(5, 305)= 32.387$, $p<.001$; $R^2= .35$. This model explained 35% of the variance in anxiety-withdrawal. The order of importance of the variables that significantly predicted anxiety-withdrawal was as follows: reticence behavior (β=.44), parallel play (β= .14), social play (β= -.13). Reticence behavior and parallel play predict anxiety-withdrawal positively, while social play predicts anxiety-withdrawal negatively. Solitary play and rough tumble play are not significant predictors of anxiety-withdrawal.

Discussion

The regression model established to predict social competence by play behaviors produced statistically significant results. While social play is a positive predictor of social competence, rough tumble play and reticence behavior are negative predictors of social competence. Rough tumble play and reticence behavior are positive predictors of anger-aggression. At the same time, while reticence behavior and parallel play positively predict anxiety-withdrawal behavior, social play negatively predicts anxiety-withdrawal behavior.

Play is a method by which children reinforce their life experiences, as well as a mirror on which they reflect their knowledge, feelings and thoughts. In this respect, play in the social dimension not only provides children with new behaviors but also offers an environment where they

can practice existing behavioral styles. The concept of social competence describes the ability of children to establish satisfactory relationships with their peers in a social context. The most social environment of childhood is the play settings they interact with their peers. The process of the play is more important than the aim of the play and the point reached when the play is over. In this context, it would not be wrong to assume that there is a relationship between children's play behaviors and social competences. It is known that negative childhood experiences are associated with negative adult mental health.

According to Aşık Öztürk (2018), play has critical importance in the process of human socialization and the acquisition of appropriate social skills. As a result of this research, this assumption is accepted with the relationship and predictive power established between these two contexts (play behavior and social competence).

One of the findings obtained as a result of the research is that social play positively predicts social competence and negatively predicts rough tumble play and reticence behavior. At the same time, the anxiety-withdrawal sub-dimension is positively predicted by reticence behavior and parallel play. Anger-aggression is predicted by reticence behavior and rough tumble play. All of these results are consistent with each other and show accordance. So much so that anger-aggression behavior and rough tumble play are generally discussed in the context of gender in the literature. The results of the research indicate that the gender that tends to display aggressive behavior and who prefer rough tumble play is the boys. In other words, boys exhibit more aggressive behaviors and at the same time, rough tumble plays are mostly preferred by boys (Gmitrova, Podhajecká, & Gmitrov, 2009; Kılınç & Ceylan, 2018; Santrock, 2011). Çorapçı et al. (2010) concluded that girls are seen as more socially competent than boys and exhibit less furious and angry behaviors. If we summarize these studies in the gender variable, the gender that prefers rough tumble plays also exhibits behaviors far from social competence. These results are also consistent with our research.

When the results obtained from the research are discussed in theoretical terms, it is seen that an evaluation can be made according to Piaget. According to Piaget's theoretical approach, parallel play is the first step of the transition to social play, and it is normal for the parallel play to be seen between the ages of 2-4 developmentally. However, in the process, it is known that the parallel play should gradually leave its place to regular and interactive plays. The sample of this research is children aged 3-6 years. In this context, at this age, it is necessary to move away from the parallel play and switch to regular and interactive plays. The observation of parallel play still points to a problem in the context of

social relations. So much so that one of the findings obtained as a result of the research is that the parallel play predicts anxiety-withdrawal behavior. Aşık Öztürk (2018) also reported in his study that there is a positive relationship between children's social competences and communication with peers during play. Also, Kılınç & Ceylan (2018) found a negative relationship between rough tumble play and social cooperation, and stated that children who preferred rough tumble plays had more externalizing problems and had difficulty in cooperating with their peers. Another result of the same research is that withdrawal behaviors and egocentric thinking style are negative predictors of social play. This and many similar studies suggest that there are significant relationships between social skills and social competences and behavioral patterns during the play process (Asik-Ozturk et al., 2019; Fantuzzo et al., 2004; Farmer-Dougan & Kaszuba, 1999 Gagnon & Nagle, 2004; Gülay Ogelman & Erten Sarıkaya, 2014; Metin Aslan, 2020; Newton & Jenvey, 2011; Veiga et al., 2017).

Social play is a bridge to the transition to the social world (Metin Aslan, 2020). Up to the age of two, social play refers to entertaining interactions with the caregiver and the immediate environment. After the age of two, parallel play begins. Social play develops and progresses, and as the social coordination of children increases, their social roles expand and turn into rule play (Smith & Pellegrini, 2013). The behavioral patterns displayed by children during social play can be considered as a rehearsal of adulthood social behaviors. Play, which is an important predictor of social competence behaviors acquired in childhood, is an effective concept in explaining the social relations of the individual in adulthood. Socially expected social skills are built on healthy social relationships. In this direction, in order to reach this social expectation, the process should begin long ago, with the way children construct their plays.

Timely determinations are one of the most decisive methods of preventing the problem before it occurs, with the effect of early intervention. Social problems in adulthood cause serious individual and societal problems. These societal problems are likely to adversely affect the development of future generations as well as many individuals and groups shared by the individual within the existing society. For this reason, based on the findings obtained as a result of the research, children's play behaviors should be observed by preschool institutions or professionals in the health system, and interventions should be made regarding other developmental processes, especially social competences that are thought to be predictive of play behaviors.

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Chapter 2

IMPROVING THE TEACHING SKILLS THROUGH LESSON STUDY: EXAMPLE OF TURKEY

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Introduction

It is the goal of every country to be a modern and developed country with a high level of prosperity, educate individuals with high citizenship awareness, transform human resources into a qualified and flexible workforce, protect their interests, and continue their individual development. The country's education system makes the greatest contribution to this goal. The countries' education systems try to fulfill this function through the schools in which they are built. The success of education systems can be explained by multiple factors that can be listed as management and leadership, professional development of teachers, financial resources and facilities, and curriculum (Karip & Koksal, 1996). In addition to the factors above, teachers have an important role and responsibility in education systems. Although there are many teacher-themed studies in the relevant literature, many studies focusing on the teacher element in effective teaching within the framework of various subfields such as teacher qualifications, effective teacher characteristics, and teacher effectiveness are also noteworthy.

Continuous professional development gains importance for the teaching profession in today's world where knowledge is increasing rapidly, and lifelong learning is increasingly important. Some other characteristics mentioned in the related literature studies on teaching are gathered under the teachers' personal characteristics. In the relevant literature, teacher characteristics are explained and discussed in the context of dimensions such as competence in content knowledge, teaching skills, personality traits, professional development characteristics, and draws attention as a subject on which research was conducted (Moran, 2005; Danielson, 2007; Dilekmen, 2008; Bayraktar & Çınar, 2010; Shindley & Elliott, 2010). In previous studies on this subject, the teachers' basic characteristics are generally explained by having the necessary knowledge-skills related to the field and the teaching profession, having general knowledge, using teaching strategies effectively, and having communication skills. In contrast, in some studies, the teacher's patience-specific characteristics are predominantly emphasized. Consequently, attention to personal development, awareness of the importance of lifelong learning, following research on their profession, cooperating with colleagues, investing in their own education, participating in conferences, and in-service training can be listed as remarkable teacher characteristics in this context.

For subject matter, which has an important place among the teacher competencies, mastery of subject on the relevant literature (Moran, 2005), mastery of the field's terminology (Polk, 2006), pedagogy knowledge (Polk, 2006; Tucker & Stronge, 2005), and content knowledge (Shulman, 1987) terms are used. On the other hand, Woolfolk (1998) pointed out the

role of knowledge in effective teaching characteristics and the importance of the teacher's teaching, explanations, and presentations in student learning.

It was stated that teaching skills, which is the focal point of the study, constitute an essential dimension among effective teacher characteristics in the relevant literature. According to the past research, many and various features such as teaching skills, creating a positive classroom environment, using various teaching methods or techniques effectively, explaining the subject by associating it with daily life (Tucker & Stronge, 2005), being prepared for the lesson (McArdle & Coutts, 2003) are strongly emphasized. The following section is a detailed description of the teaching skills highlighted in the literature (Brophy, 2000; Cotton, 2000; Moran, 2005; Stronge, 2005; Tucker & Stronge, 2005; Jones et al., 2006; Danielson, 2007; Goe et al., 2008; Swainston, 2008).

In-service training activities are organized by the Ministry of Education (MoNE)'s central and provincial organizations to ensure the professional development of teachers in Turkey. However, studies indicate that the in-service training seminars organized by the Ministry of National Education without a certain period are planned without taking into account the field differences and in-service training needs of teachers (Gökdere, Küçük & Çepni, 2003) and are insufficient in terms of quantity and quality in ensuring the professional development of teachers (Çağıltay et al., 2001; Gönen & Kocakaya, 2006). It is clear that ineffective and insignificant in-service training practices will not achieve their purpose. When the studies in the literature are reviewed, many experts criticize the in-service programs in which a pre-prepared program such as a seminar and workshop is routinely taught, where the teacher is in a passive position, outside the traditionally accepted learning environment. These kinds of activities are not accepted as they are far from the learning environment, teacher and student interaction do not take place, and they do not attempt to improve the school (Greeno & Moore, 1993; Yuan & McKelvey, 2002; as cited in Yüzbaşıoğlu, 2016). These practices have started to be replaced by applications where teachers have active participation, work with a group in a cooperative learning environment, and real practices in the classroom environment.

Lesson study is a model used by researchers in many countries (Lewis, Perry & Murata, 2006; Corcoran, 2008; Murata, 2011) in teachers' pre-service and in-service professional development. Although it was used in the pre-service development of prospective teachers in many studies in Turkey since 2011 (Budak, Budak, Bozkurt & Kaygın, 2011; Baki, 2012; Kartal, Öztürk & Ekici, 2012; Erbilgin, 2013), the study in which this model is used in in-service training is rare (Yıldız, 2013; Kanpolat,

2015; Özen, 2015). Referring in general to the studies on lesson study in Turkey, it is observed that they are mainly focused on mathematics and professional development, and they are gathered under ten titles. The lesson study research conducted in Turkey are as follows: the development of mathematics teaching information of prospective teachers through lesson study model (Baki, 2012; Bütün, 2012; Akbaba Dağ, 2014, Aldemir, 2016; Cumhur, 2016; Day & Akyüz, 2017; Özaltın Çelik, 2017; Özdemir Baki, 2017; Özdemir Baki & Işık, 2018), the effect of lesson study on lesson plan (Baki & Arslan, 2015), self-efficacy feelings of mathematics teachers in the online course lesson study (Budak, 2012), TIMSS 2007 mathematics performances and cooperative learning of students in classrooms where the lesson study model was applied (Kılıç, Demir & Ünal, 2011), the collaboration of teachers / prospective teachers in the lesson study model (Budak, Budak, Bozkurt, & Kaygın, 2011; Budak, 2012; Günay, Yücel-Toy & Bahadır, 2016), the effect of the lesson study model on prospective teachers' eagerness to learn (Bütün, 2012), lesson study as a professional development practice (Yüzbaşıoğlu, 2016; Güner & Akyüz, 2017; Bayram, 2018; Bozkurt & Yetkin Özdemir 2018; Doğan & Altun, 2018), teachers' opinions on lesson study (Erbilgin, 2013; Yüzbaşıoğlu, 2016; Bozkuş et al., 2017; Boran & Tarım, 2018), document review studies on lesson study (Eraslan, 2008; Bayram, 2010) and content analysis studies on lesson study (Serbest, 2014; Kıncal & Beypınar, 2015). Accordingly, it can be suggested that studies showing that lesson study is effective on teachers' professional development and student achievement has gained significance in recent years, and the number of studies in this area has increased.

Based on this context, the study aims to examine the perceptions of classroom teachers towards the effectiveness of the lesson study model, which is a different practice from traditional professional development activities in their teaching skills trends. Within the scope of the purpose of the study, answers to the following research questions were sought:

- What are the training needs of classroom teachers regarding teaching skills?
- How is the lesson study application process?
- How has the teaching skills of classroom teachers improved in the lesson study process?
- What are the opinions of the classroom teachers about the lesson study practice?

This research is expected to contribute to educational sciences by shedding light on new studies and applications on the subject.

Method

The research was designed with the action research model, one of the qualitative research methods. This research design is a research approach that involves systematic data collection and analysis to reveal the problems related to the application process or to understand and solve a problem that is carried out by a practitioner directly or with a researcher who is involved in the application in any environment such as school or organization in education. It (Fraenkel & Wallen, 2003; Mills, 2003; Uzuner, 2005; Yıldırım & Şimşek, 2011).

Participants

The study group was determined by the criterion sampling method, one of the purposive sampling methods. The basic understanding of the criterion sampling method is to study all situations that meet a predetermined set of criteria (Yıldırım & Şimşek, 2018). As criteria in this study, there are criteria for teachers to sign a permit to fulfill the duties and responsibilities of the lesson study, to determine the teachers who need to apply the lesson study, and to participate in the study only for the group teachers who teach the same grade. Based on these criteria, the study group consists of four classroom teachers who work in the 3rd grade at a private school in the Bornova District of Izmir province in Turkey. Research participants are coded as P1, P2, P3, and P4.

The demographic information of the participating teachers was specified without the need to create a table. 4 (100%) of the teachers are women. While 3 (75%) of the teachers have a teaching experience of 6-10 years, 1 teacher (25%) has a teaching experience of 21 years or more. The classroom size of 4 (100%) of the teachers is between 16-30 students. While 3 (75%) of the teachers were graduates of the faculty of education, 1 (25%) of them graduated from a higher teacher education school.

Measures

Personal information form. The researcher created this form to determine the demographic characteristics of the sample of the study (gender, graduation, educational status, teaching experience, classroom size, grade) for the purpose of the study.

Semi-structured interview form. It consists of six semi-structured open-ended questions determined for the research:

- What are the classroom teachers' teaching skills trends?
- Do teaching skills trends significantly differ by various variables?

- What are the training needs of classroom teachers regarding teaching skills?
- How is the lesson study application process?
- How has the teaching skills of classroom teachers improved in the lesson study process?
- What are the opinions of the classroom teachers about the lesson study practice?

Teacher observation form. It is aimed to take notes by observing the classroom teachers' ability to improve their teaching skills with the lesson study model.

Research diary. The details of all kinds of activities from the beginning to the end of the research were recorded. The weeks, days, and hours of the study were written by the researcher on that day, together with the notes taken about the special cases encountered during the research and monitoring the records.

Teacher reflection report. Teachers were asked to write a reflection report to examine their ability to improve their teaching skills with the lesson study model.

Meeting recordings. Interviews with classroom teachers were recorded in accordance with ethical principles after getting permission before the meeting.

Procedure

Before the study was started, ethical approval was obtained from the University Ethical Committee. For the implementation of the research, permission was obtained from İzmir Province Bornova District National Education Directorate with the number 604.01.02-E.11691525 dated 16/11/2015. Besides, a "Participant Information Form" was signed by obtaining voluntary consent from the participants before recording the meetings held in the study.

Teachers' lessons were observed at the beginning of the application, and the teaching skills that teachers were lacking were attempted to be determined. Each teacher's Turkish, mathematics, life science, or science lessons were observed for two hours each. After the observations, interviews were carried out with the teachers with a semi-structured interview form to determine their teaching skills deficiencies and needs. Teachers' needs were determined primarily for the improvement of lesson study.

At the end of the study, a semi-structured interview form was used to collect teachers' opinions about the application. The researcher throughout the process regularly kept the researcher's diary. In the diaries, the preparations made before the meeting, the researcher's thoughts, and the important literature reviews regularly made by the researcher were also included. Immediately after the meeting was over, the researcher recorded their observations, thoughts, and teachers' feedback about the meeting in a diary. In this process, the researcher's suggestions for the next meeting, and their feedback on previous plans related to the meeting were also included. Teachers also prepared a "reflective report" after the lesson in the lesson study application and submitted a report on what has was after the lesson is completed and the dos/don'ts and suggestions for future practitioners. Thanks to these reports, teachers' opinions and revision decisions were more observable for the researcher. The data of the research on how the lesson study process was collected by using the lesson study meeting records.

Data analysis

Descriptive analysis technique was used in the analysis of data in the study. The stages of the descriptive analysis of the research are: "Creating a framework for descriptive analysis, processing the data according to the thematic framework, defining the findings, and interpreting the findings."

Data reliability

Reliability in action research means measuring activities and tools as good or perfect (Şencan, 2005). Researchers emphasize that a series of precautions should be taken in action research (Şencan, 2005; Yıldırım & Şimşek, 2018). These measures and the reliability studies carried out in line with these measures in the research are as follows: "Using the diversification/triangulation technique in the data collection process, reviewing the literature, peer (field expert) evaluation, explaining the process in detail, journaling, and external observer evaluation."

The role of the researcher

The researcher declares that he complies with scientific, ethical principles from the design of the study to the stage of conducting and reporting the research. However, efforts were made for the sensitivity required by qualitative research. The data allowed by the participants to be used were utilized; informal interviews and evaluations were excluded from the scope of the study and were not included in the study in any way. The data collected from the participants is limited to the scope of the subject. Participants were not asked questions unrelated to the subject.

Results

Results for the Training Needs of Classroom Teachers Regarding their Teaching Skills

The results for the training needs of the classroom teachers, who are trained with the lesson study method, regarding their teaching skills are given below:

P1: Based on the lesson observations, it was observed that the teacher had problems in the implementation of the lesson. It was observed that the teacher did not prepare appropriate material for the course objectives, did not diversify the teaching, did not apply cooperative teaching, and did not take into account the students' learning characteristics to acquire new knowledge. It was also seen that the teacher has good classroom interaction, provides classroom management, has good reinforcement skills, has high listening skills, and the teacher's enthusiasm and motivation are at a good level. As a result of the teacher interview, it was determined that the teacher knows that it is necessary to do but does not do it in order to act according to certain standards of the institution, to prepare students for exams, to teach the objectives given in the curriculum on time, to complete textbooks and resource books that need to be taught, and to be at the same level with other classes. It was observed that the teacher did not apply effective teaching methods that she learned in undergraduate education; the student actively participated and learned by doing and experiencing. The teacher started her first professional experience in a private school and arranged her routine practices according to this institution.

P2: It was observed that the teacher only lectured on the worksheet during the mathematics course, and the students answered the questions in turn; and this situation both caused a waste of time and caused the students to get bored and decrease their motivation. In the lesson observations made before the application, it was seen that the teachers did similar practices. After the interview, it was seen that this situation was because teachers were not recommended to differ from each other due to the institution's standards and that the class teachers should act together and teach in a standard way. P2, like other teachers, teaches his lessons by using textbooks, resource books, or various educational platforms. Student participation takes place in the form of only the student whose turn is to stand up and solve the question. In this case, the teacher applies a stereotypical teaching method and does not do a diverse practice that considers effective teaching and student learning. It was seen that P2 did not prepare materials suitable for the purposes of the subject before the lesson, did not design activities suitable for student learning characteristics, did not diversify teaching, did not implement cooperative teaching, and

did not carry out the necessary strategies for the realization of learning. It was seen that the teacher has a tense atmosphere in his classroom, and he has an authoritarian attitude. It was also observed that the teacher has good classroom management and can regulate the behaviors that disrupt the flow of the lesson.

P3: In the interview held, he explained why they taught the lessons quickly and uniformly. The researcher saw that the teacher's lessons were the same as the other group teachers, and there was no special teaching style for the teachers. Teachers differ only in their classroom management and classroom interaction skills. The teacher's lessons are usually taught by using teacher-centered or question-and-answer methods, in such a way that limited student participation is provided, student-centered students are active, and learning by doing methods are not used. It was observed that the teacher did not use pre-prepared teaching materials, did not plan the lesson according to student characteristics, did not use student-centered teaching methods, did not diversify teaching, could not encourage students to learn, and did not use cooperative teaching methods. It was observed that the teacher had good classroom interaction, valued students, had a positive atmosphere in the classroom, had good listening skills, had a democratic attitude, and had high enthusiasm and motivation. In the interview, the teacher stated that he knew the teaching skills that a teacher should have for effective teaching but could not apply them in their courses.

P4: After the lesson observations of the teacher, it was observed that the teacher did not prepare materials suitable for the objectives of the subject before the lesson, did not diversify the teaching, did not apply cooperative teaching, and did not take into account the learning characteristics of the students for acquiring new knowledge. It was also seen that the teacher has good student interaction, has a democratic attitude, respects students' thoughts, makes students feel special and valuable, and has good classroom management. The teacher stated that he was aware that they were teaching uniformly and that this was accepted. He stated that they did not receive any criticism for teaching in this way; on the contrary, both parents and the administration were satisfied.

Results for the Contribution of Lesson Study Process to Participant Teachers' Teaching Skills

The results for the analysis of the development observed in teachers after the lesson study and the outcomes obtained by observing the routine lessons of teachers in their school environment and classrooms in the context of their teaching skills are given below:

P1: The first lesson study was organized with the teacher. A research lesson was conducted on the subject of reading comprehension in the Turkish course. The focus of the research lesson was on the skills that the teacher does not use in his lessons as a result of observations. Based on these skills, a student-centered plan was designed in which teachers and students can make inferences, work collaboratively, structure knowledge, and actively participate. The teacher carried out the plan smoothly in the practice lesson of the lesson study and had a fun and productive lesson with the students. The teacher drew the students' attention to the subject at the beginning of the lesson, prevented the loss of time by passing smoothly from one step to the next in the planned activities, and kept the students' attention alive. He successfully used the skills he lacked in the practice lesson and was able to teach his students the desired objectives. The teacher prepared activities according to his students' characteristics with the practice of lesson study, enabled students to work collaboratively, ensured them to analyze the subject and make inferences, and enabled them to criticize the normal. It can be said that the practice of lesson study raised awareness of the teacher's teaching skills and contributed to the development of these skills.

P2: The second lesson study was done with the teacher. A lesson plan on problem-solving skills in mathematics lesson was prepared. It was aimed to use unused skills in the plan prepared with the group teachers and the researcher. The activity aimed to develop problem-solving skills, which are among the life skills for students. Besides, a lesson was planned based on the fact that the student-centered course includes collaborative work, active participation of the student, enable students to analyze the subject and make inferences, use verbal and non-verbal instructions to attract attention and keep it alive, the transition between steps is smooth, students benefit from their old knowledge to use their problem-solving skills. The teacher fulfilled the plan's requirements without any problems, and it was a successful lesson that the students learned with fun and worked collaboratively. The teacher successfully applied the skills that he did not use in the observation lessons in the practice lesson.

P3: The researcher observed the teacher's Turkish, mathematics, and life studies lessons before the lesson study. As a result of the observations made, it was observed that the teacher teaches teacher-centered lessons. In the meetings held with the group teachers before the lesson, it was decided which subjects would be covered in that week and from which sources the homework would be given, and lesson plans were not prepared according to the students' characteristics and in which they would actively participate. It was aimed to use these skills in the third lesson plan prepared with the participation of the branch teachers and the

researcher. These skills were taken as a basis while preparing the warm-up, learning-teaching process, and evaluation stages of the course. A plan was designed to make an application in the teacher's life studies lesson on "the importance of housing for living things." The teacher fulfilled the plan prepared with the lesson study without any problems; it was a course in which students participated actively, there was student-centered group work where students could learn from each other, students' attention was kept lively, and their thinking skills were developed.

P4: The fourth lesson study practice was conducted with the teacher. The phenomena of seeing and the movement of light were covered in the science course as a lesson study application course. The skills of designing and proving experiments are included in the objectives of the subject. The teacher stated that these skills were lacking, and the lesson study team planned a lesson in which these skills could be used. The teacher had previously prepared for the plan to be made before the practice and collected information on the subjects he did not know. With the help of the researcher, a lesson was prepared in which these skills of the teacher could be developed. It was expected that the teacher would teach a student-centered lesson in the activities to be carried out by discovering and ensuring students' active participation. With this lesson, the teacher enabled the students to work collaboratively, analyze the subject and make inferences, and access information based on existing information. With the practice lesson that the teacher continued successfully, the students learned with fun, participated actively in the lesson, and enabled the students to reach knowledge through experiments and proofs. The teacher used the skills he did not use in the pre-implementation observations in this lesson.

Results for the Planning Meetings

Lesson study planning lessons are designed by focusing on teaching skills that teachers use limited or never. Setting the time and day of planning meetings was more difficult in public school, but more comfortable in the private school. While the place for planning meetings created a problem in the public school, the presence of a room in the private school where class teachers could hold meetings eliminated this problem. Expecting intense work from teachers in planning meetings led to the necessity of teachers coming to the meetings by making preparations and conducting research. The importance and effectiveness of a lesson plan were noticed in the public school's routine functioning due to the lack of preparation for a lesson in advance or planning for effective teaching in advance. Although lesson plans are prepared by making collaborative studies in private schools more frequently than in public schools, it is seen that this

planning is not designed for effective teaching, it is designed to determine the topic, identify the sources to be used in the lesson and homework to be assigned.

The collaborative planning meetings held in accordance with the nature of the lesson study increased the communication between teachers and showed that lesson planning was very enjoyable and efficient by exchanging ideas. In the public school, it was observed that the lessons conducted more individually and the activities prepared by sharing less with their colleagues were observed, while it was seen that there was more colleague solidarity in the private school, but different activities were not planned to ensure effective student-centered teaching. Teachers participating in the study in both schools believe in the necessity of planning in the education and teaching process but do not make adequate and efficient planning. Teachers' guidebooks, with daily plans ready, eliminated the need for lesson planning for teachers. From beginner teachers to senior teachers, all teachers either conduct their lessons by adhering to the guidebooks or conducting their lessons as they wish, without commitment and planning. While there are lesson plans available with guidebooks, it is considered unnecessary for teachers to plan the lesson by making collaborative studies again. The lesson planning meetings held in collaboration with the lesson study were held in a positive atmosphere, and it was observed that the researches and discussions that contributed to learning and professional development by sharing made the participating teachers happy. Attending the class with preparation provided the teacher with self-confidence and job satisfaction.

Results for Evaluation Meetings

Evaluation meetings were held right after the practice lessons were carried out by taking into consideration the lesson observations and reflective reports of the participating teachers.

The teachers positively criticized the lessons in the meetings to evaluate the practice lessons and found them sufficient. None of the teachers had a separate lesson regarding the objectives to be taught in practice lessons. With the consensus that the students' learning is realized and the objectives are taught, lesson study was terminated, and the collaborative plan was not required to be revised. At the end of each meeting, teachers other than the teacher who implemented the plan wanted to implement the plan in their classes. The meetings ended with the decision to implement the planned lesson by other teachers.

Results for the Classroom Teachers' Opinions on the Lesson Study Practice

The researcher conducted a 10-minute semi-structured interview with the teachers and collected the teachers' opinions on the practice of lesson study. The results for the teachers' opinions of the lesson study practice are presented under two subheadings as the positive aspects and limitations:

Classroom teachers' opinions on the positive aspects of the lesson study practice. The participating teachers' opinions were analyzed, and similar opinions were observed. Teachers believe that the practice makes education fun by freeing it from boredom, both students and teachers take responsibility by doing collaborative work, they have the opportunity to use different teaching methods, students can actively participate, they can evaluate themselves by observing their colleagues with lesson observations, and they added that the lessons are more effective and productive.

Classroom teachers' opinions on the limitations of the lesson study practice. When the participant teachers' opinions were examined, it was seen that the teachers agreed that the lesson study model had no limitations/ negative aspects. In addition to these teachers' opinions, they stated that the practice requires experience, they could be more successful when they are experienced, the activities applied in the lesson should be repeated and continuous, teachers and students should do their duties fully; otherwise, problems may arise.

Discussion

It is expected that the teacher will be effective in the learning environment in order for effective learning to take place. Teacher effectiveness, including the teacher's behavior and actions, has great importance in the formation of learning in students from the beginning to the end of the education process (Korur & Eryılmaz, 2012). Teacher effectiveness is also largely related to learning outcomes, such as student motivation and achievement (Fives, 2003). In this regard, teacher effectiveness should be evaluated in terms of students' behavior and learning. Byrd & Rasberry (2011:4) defines teacher effectiveness under five subheadings: "Leadership, the establishment of a respectful environment, content knowledge, facilitation of learning, and reflection on practice." In the relevant literature, some researchers define teacher effectiveness in terms of student achievement, while others evaluate it according to the administrators' grades based on the performance. Briefly, teacher characteristics have an important place in teacher effectiveness,

and they are relatively constant qualities that affect the way teachers practice their profession.

Within the scope of the research, the perceptions of classroom teachers towards the effectiveness of the lesson study model, which is a different practice from traditional professional development activities, in their teaching skills trends are discussed in the relevant literature as follows:

The importance of these skills for effective and permanent learning was realized with the lesson study, and it was observed that the practices done with colleague solidarity makes teaching enjoyable and facilitates. Kor & Lim (2009) stated in their study that lesson study was effective in teachers' learning new skills despite the time problem.

One of the greatest contributions of lesson study to teachers was the opportunity to observe their colleagues through practice lessons and evaluate themselves. This achievement, which is also supported by social learning theory, offered opportunities that teachers could not obtain in routine practices. As a result of the interviews, they stated that the teachers had the opportunity to evaluate themselves in the practice lessons in this way that they observed their colleagues and student achievement. Research findings are parallel to the literature (Lim, White & Chiew, 2005).

The teachers, working in collaboration with the lesson study, learned from each other by exchanging ideas. Each teacher in the course study team could express their ideas freely, regardless of the duration of employment in the profession, and shared their knowledge and suggestions with other colleagues. P3, one of the participating teachers, continued to work in the private school after retiring from the public school. The experiences of this teacher guided the other teachers who were new to the profession. The participant P3 also had the opportunity to share her experiences thanks to the lesson study.

Participating teachers made practice studies focused on their needs with the course study method. It was suggested in many studies in the literature that other professional development activities do not meet the needs of teachers and are not beneficial (Durmuş, 2013). The preparation of the lesson study practice, which was planned in cooperation by taking the opinions of the participating teachers by focusing on the teachers' opinions and needs, increased the effectiveness of the application and contributed to the development of teachers' teaching skills.

The active participation and interaction of teachers in small groups were provided with the lesson study. These features of the application are in line with adult learning principles. The participant teachers' active

participation and their working in solidarity as a group enabled them to see how to use the teaching skills they know in theory by practicing. Ling & Mackenzie (2001) and Abazaoğlu (2014) stated in their studies that it is possible to achieve positive changes in practice in professional development programs by applying a versatile, dynamic, and interactive approach such as lesson study.

Many research indicated that the lesson study model, which is a Japanese teacher training method based on the experience build up over the years, could be a beneficial example for the context of Turkey and added that allocating a certain proportion of this training program to teaching activities can help teachers guide their learning (Eraslan, 2008; Bayrakçı, 2009).

The support of the researcher, as an expert teacher, was used in cases where the participants had difficulty and needed help with the lesson study practice. In preparing the lesson plans, the participant teachers were guided with theoretical information such as effective teaching methods and learning strategies, and sample applications. This feature of the practice increased the teachers' motivation by reducing their anxiety levels with the presence of an expert person who made them feel that they were not alone while working and could help whenever they wanted. Corcoran (2011) discussed the place of experts in the study lesson in her study and emphasized that especially novice teachers and pre-service teachers need the guidance of an expert person in this process since they do not have the experience to conduct a lesson study.

In the research conducted to improve teachers' teaching skills, it was observed that the preferred lesson study model was effective due to its suitability for teachers' professional development preferences. The research findings are in parallel with the literature and conclude that the lesson study model is effective in teachers' professional development. Gero (2015: 21) argued that most of the teachers in their study suggested that the course research was effective and should continue.

Participating teachers expressed that the lesson study model has no negative features. Similarly, according to the research results of Erdem, Uzal & Ersoy (2010), it was determined that teachers were satisfied with the applied activities, they wanted the activities to be carried out more than three days, and they wanted to participate in interactive and intensive applied profession development activities that meet the needs of teachers.

Stating that the application should be made for the first time and that there may be problems due to inexperience, the application should be repeated more frequently to solve these problems. It was underlined that if teachers' great responsibility is not fulfilled during the lesson planning

and implementation process, there could be problems, and everyone should do their part. In their research titled "Learning to Learn From Teaching: A First-Hand Account of Lesson Study in Japan," Ermeling & Graff-Ermeling (2014) attributed the success of the study of lesson study to teachers' long-term practice, their meticulous work avoiding rushing practices, and their mastery of the skills required by lesson study practice. Similarly, Lewis et al. (2006) stated that practitioners' lack of sufficient knowledge and skills is an important factor affecting the success of the application. He stated that Yoshida (2012: 144) reflected that the lesson studies, which he likened to Japanese swordsmanship (*kendo*), need to be mastered before applying our own experience and practices, and that this requires continuous study, a slow-steady-effective application process, patience, and time. He stated that the principles of course work should be put on a solid foundation, the adaptations should be tested to evaluate the effectiveness carefully and step by step, and permanent results and change could be created by working diligently.

Conclusion

As a result of the interviews and lesson observations conducted with the participant teachers, it was seen that the teachers' perceptions of teaching skills were good, but they could not apply these skills in their classrooms. It was also seen that they taught their lessons without applying these skills to stick to the curriculum, please the parents, avoid time problems, and conduct exam-oriented courses. By adhering to the coursebook and the supplementary books, it is seen that the traditional teaching model is applied, which does not ensure the active participation of students instead of using various educational learning platforms and a smartboard. Even if teachers who teach with this system have the teaching skills they should have, it was unnecessary to practice these skills. Unlike the classical education system, which teaches using the classical method, the public school is dominated by teaching with projection and the private school with a smartboard.

The teaching skills that the teachers who participated in the lesson study application showed at least or not at all are given below:

- I prepare activities that improve students' skills (critical thinking, problem-solving, etc.).
- I design activities suitable for a student-centered teaching approach.
- I allow my students to work collaboratively.

- I can use any place other than the classroom environment (garden, laboratory, library, museum, etc.) as a teaching environment.
- I allow my students to analyze the topic and make inferences.
- I code by classifying the information, and I want my students to do the same.
- I make my students think flexible and be open to new things.
- I evaluate myself by taking into account the views of my students and colleagues.
- I design preventive and developmental activities for my students to fill their needs.
- I make an effort to improve my own performance.

The fact that the teaching profession requires special expertise and skills, and not everyone should be teachers is the teaching skill that teachers should have. Teaching skills, which were not observed in a substantial quality and quantity in the study, show that the expertise required by the profession is not used. This may be the reason why any person who has knowledge in a particular field, who has trained or graduated from an institution that does or does not train teachers, may be practicing the teaching profession. With the development of technology, smart boards have almost replaced teachers, teacher guidebooks come ready with lesson plans, and various education and training platforms show that teachers teach without applying any teaching skills. In this case, anyone can do the teaching profession. While the most important role in gaining the skills and competencies expected from individuals by technological development and social change is given to education, teachers' deficiencies and needs in the process are ignored.

According to the results of this study, the following suggestions can be made:

- These skill levels of teachers can be increased with practice examples that are based on their teaching skills.
- Studies can be conducted in schools to fill the gap between theory and practice by collaborating with universities to develop teachers' teaching skills.
- It can be proposed to enrich research by collecting qualitative data by conducting job shadowing observations and teacher interviews to collect deeper and more detailed data and determine the teachers' teaching skills levels.
- It may be suggested to apply the scale of teaching skills to teachers in different fields and at different levels to make it widespread.

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Chapter 3

SCIENTIFIC DISPOSITON IN PRESCHOOL: PERSPECTIVES FROM TEACHERS AND PROSPECTIVE TEACHERS

Hacer TEKERCİ[1]

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Introduction

Preschool period is a period in which children become curious about, interested in, and critical of the events in their immediate surroundings, which they perceive through their dispositions. Theories about learning and development stress that children in this early stage display a natural curiosity, interest and disposition towards their surroundings, the world they live in, and the events around them. In order to better understand the innate dispositions of children, the development of interest and curiosity elements, which are the prerequisites of the concept of disposition, should be well known.

Accordingly, the development of the elements of interest and curiosity, which are the prerequisites of the concept of 'disposition', is based on the "theory of interest" based on philosophical and psychological thoughts by Herbart (1965) in the early 19th century. At the start of the 20th century, some important thinkers (e.g. Baldwin, 1897, 1906, 1907; cf. Arnold, 1906; Claparède, 1909; Dewey, 1913; James, 1912; Kerschensteiner, 1926; Lunk, 1926, 1927; Rubinstein, 1935/ 1958; Thorndike, 1935; for a summary, Berlyne, 1949) tried to explain the relationship between interest, dispositions and learning (Akt: İnan Kaya, 2016, s.107; Renninger & Hidi, 2011, s.174). There are studies carried out independently from each other in many sub-areas of psychology about interest and curiosity, which are considered as a motivational-emotional element that triggers successive discovery and discovery activities and directs the behavior of individuals. The concepts of curiosity and interest have long since been examined in psychology literature. Accordingly in the literature, curiosity has been thought of as a motive emerging from a conflict or mismatch of stimuli (Berlyne, 1954), a situational variable (Hidi, 1990), as a personal feature that plays a role in career choice (Holland, 1997), a feeling (Silvia, 2005), a developmental feature (Hidi & Rennninger, 2006), a structure that allows the individual to self-regulate in the face of situations (Sansone & Thoman, 2005) to name a few different works (Akt: İnan Kaya, 2016, s.105).

Hidi, Renninger and Krapp (2004) discussed the concepts of curiosity and interest are examined from the perspective of education studies, they have been framed as motivational-emotional variables that affect peoples' dispositions towards new learning experiences and discovery behaviors. Dewey stated that education carried out in line with the interests of the children will be better than the educational activities aimed at their development without interesting them (Akt: İnan Kaya, 2016). On the other hand, Piaget emphasizes that in development, children construct knowledge through their self-emerging discoveries in line with their interests, curiosities and dispositions (Carin & Bass, 2001; Charlesworth

& Lind, 1995; Estes, 2004; Kostelnik, Soderman & Whiren, 2019; Princhankol, Sudsanong & Yampinij, 2010). For this reason, the term "dispositions" underlying children's interest, curiosity and learning and motivating them to learn; using the term disposition and/or related terms such as Dewey's (1930) notion of good habits of mind or Siegel's (1988) critical spirit, they have emphasized the importance of analyzing thinking from the standpoint of both abilities and dispositions. Roughly speaking, dispositions are behavioral tendencies: the disposition to cheat or play straight, the disposition to be bold or cautious, the disposition to give thinking time, to consider broader perspectives, to seek evidence vigorously, and so on. Dispositions can concern thinking (as the last three mentioned do) or other matters (Perkins, Jay & Tishman, 1993).

Looking at various different sources for a definition of "disposition"; Webster's Dictionary defines 'disposition' as a particular mental or character disposition, liking, or preference. The American College Dictionary lists the words "tendency, inclination and style" as synonymous (Katz, 1993a). In Katz's (1993) other definition, the word "disposition" is defined as: "displaying a broad purposeful behavioral model consciously and voluntarily" (Ros-Voseles & Fowler-Haughey, 2007). When the structure of the concept of disposition is examined, a disposition is a psychological element with three components: inclination, sensitivity, and ability. The three components contribute as follows: Inclination refers to the person's felt tendency toward behavior X. Sensitivity, in contrast, refers to the person's alertness to X occasions. Finally, ability, of course, refers to the actual ability to follow through with X behavior (Perkins, Jay & Tishman, 1993). Science making and scientific facts in early period, forming the structure of the disposition; it covers and strengthens tendency, sensitivity and ability components. For example, children; to see the worms coming out of the soil after the rain, they spontaneously direct them to investigate (tendency), they need to investigate the life of the dinosaurs (sensitivity) or make possible predictions about the ants' underground life (ability) etc.

In this process for learning education programs, It should aim to provide content that they may be interested in, strengthen their dispositions (tendency, sensitivity and ability) (Perkins, Jay & Shari Tishman, 1993), support thinking skills, and gain correct mind habits (Carr, 2006). Accordingly, it is the most important part of this process to support the learning desire arising from the natural curiosity of children in the early period with activities that may be of interest to them, to prepare and implement the structure of educational programs, and that will strengthen the dispositions of children (Atallah, Bryant & Dada, 2010). Disposition-based science studies to be carried out in the early period can be seen as the focal point in the development of scientific thinking, scientific literacy

skills and advanced academic skills, strengthening children's dispositions. Because scientific facts emerge as the most effective method that children can use to observe what is going on in the world and to learn about the world. Natural dispositions of children towards science and scientific facts bring to mind the concept of scientific disposition. According to Tekerci (2019) *scientific disposition;* the early orientation of children towards science and scientific events, showing intense interest and motivation in science and as a result adopt an intentional behavioral model. In addition to all these, strengthening the dispositions of children, which are at the focal point of concepts such as lifelong learning and effective learning, which evoke a sense of interest and curiosity, with effective environmental conditions and teacher attitudes constitute the main purpose of educational studies (Tekerci & Kandır, 2017). In line with this basic purpose, it is of utmost importance to be aware of and support children's scientific dispositions, in order to organize their educational studies and development.

Not all dispositions that arise in children in educational practices are desired. Teaching and education practices should strengthen desired dispositions, while weakening unwanted ones (Katz, 1993b). Because dispositions have environmental sensitivity; they are supported or weakened by interactive experiences with adults and their peers in their environment (Swanson & Ros-Voseles, 2009; Graven, 2015). That is why for early childhood teachers, awareness of the concept of "dispositions" is crucial, and more research is needed on the topic. Because, it is very important to make the direction of learning more visible through deliberate and systematic studies rather than being weakened in uncertain learning opportunities and conditions. Most children in preschool have an inclination towards things like books, games, cartoons, documentaries etc. Therefore, planning studies and developing environments for the development of scientific disposition by teachers in the early period can contribute to the strengthening of scientific disposition in children, the development of scientific thinking skills, and positive attitudes of children towards science and learning. What is important at this point is that teachers who are concerned with the concept of "scientific disposition" provide a dynamic approach. Identifying the potentials or potential development aspects of children and providing qualified guidance on what strengthens or weakens them is the most important factor. Accordingly, with the recognition, monitoring / evaluation of developmental and scientific dispositions in terms of teachers in preschool period is extremely important; this can be achieved through organizing training programs and training environments to support this. When all these points are taken into account, it is the teachers' responsibility to motivate children to learn in line with their dispositions. Therefore, it is very necessary and important

to determine the opinions of teachers and prospective teachers about the concept of scientific disposition in preschool period. Based on this point, this research was conducted to examine the opinions of pre-school teachers and prospective teachers regarding the concept of "scientific disposition" in preschool period. For this purpose, the following questions were sought in the study:

1. Do the responses of preschool teachers and teacher candidates regarding the meaning of the expression "scientific disposition" differ?

2. Do the responses of preschool teachers and teacher candidates regarding the scope of the "scientific position" statement differ?

3. Do the responses of preschool teachers and teacher candidates regarding the studies conducted to develop "scientific disposition" differ?

4. Do the responses of the teachers and pre-service teachers regarding their suggestions about "scientific disposition" differ?

Method

Research Model

This study aims to examine in depth the perspectives of teachers and prospective teachers on the concept of "scientific disposition" In this context, the research relies on case studies as a qualitative research method. Case studies are an example of a research method that clearly outlines the boundaries of the researched event, allowing for creative new findings and a deepened and better understanding of certain events (Fraenkel, Wallen & Hyun, 2011). The goal of a case study is to produce results related to a particular situation. The most basic feature of a qualitative case study is the in-depth investigation of one or more situations (Yıldırım & Şimşek, 2011).

Study Group

The research's study group is comprised of 50 teachers who were keen to partake in the study and who had worked throughout the 2018-2019 academic year at 5 different independent preschools recognized by Turkey's Ministry of National Education for children aged between 33-66 months in the center of Burdur province, along with 50 teaching candidates from the Burdur Mehmet Akif Ersoy University Educational Faculty's Preschool Teaching undergraduate program; totaling 100 teachers and teacher candidates in total. In order to increase the validity of the research, a study group with the characteristics to be able to voice opinions about 'scientific disposition' was determined. Criterion sampling,

a purposive sampling method, was used in the process of determining the study group. Criterion sampling is the study of all situations that meet a set of predetermined criteria (Yıldırım & Şimşek, 2011).

Data Collection

In the collection of research data, firstly, an interview form was developed by examining the theoretical information in depth. In order to ensure the internal validity of 'Preschool Teacher / Prospective Teacher Scientific Disposition Interview Form', the form was presented to a number of experts. According to the experts' suggestions, the interview form was finalized. The content validity rate and item reliability of the interview questions that were not structured in line with the opinions of the experts were calculated. Then, a preliminary interview was held with a teacher and a teacher candidate to determine whether the interview questions were appropriate and understandable. The negotiations lasted about 20 minutes. At the beginning of the interview, the researcher explained the purpose and how the interview was conducted to the subjects. The interview results were recorded on the interview form. In the study, the opinions of the subjects were limited with their responses to the questions in the unstructured interview form. In the interviews, the preschool teacher and prospective teachers, "What do you understand from the term scientific disposition?", "What do you think the term scientific disposition covers?", "What are you doing to develop the scientific disposition of children in your education program practices in your classroom?" "Is there anything else you want to say about the 'scientific disposition'? Please explain. " Questions in the form were asked, and the opinions of teachers and prospective teachers on the "scientific disposition" were recorded by the interviewer in writing.

Data Analysis

Descriptive analysis technique was used to analyze the data obtained from the answers of teachers and prospective teachers recorded in 'Preschool Teacher / Prospective Teacher Scientific Disposition Interview Form', and the data were summarized and interpreted. The purpose of descriptive analysis is to make the raw data available to the reader to understand and use if they wish. For this, data is created according to the themes posed by the research questions and presented by considering the questions used in the interview (Yıldırım & Şimşek, 2011). In the evaluation of the interviews, the researcher analyzed the obtained data and classified them under certain themes. After this process, the data was encoded and a code list was created depending on the options created. The reliability of the research was made by comparing the codings made

by the researcher and a field expert. In the coding reliability study; it is necessary to reach a reliability percentage of at least 70% (Balcı, 2015). Accordingly, the mean of the reliability rates among coders among all questions was determined to be 90%. At the last stage, the opinions of teachers and prospective teachers were presented in the framework of the themes determined. Number and percentage calculations were made based on the total number of teachers and teacher candidates (n: 100).

Data Collection Instrument

The data collection instrument used in the research was a "Preschool Teacher / Prospective Teacher Scientific Disposition Interview Form" created by the researcher specifically for the teachers and prospective teachers.

Preschool Teacher / Prospective Teacher Scientific Disposition Interview Form. In the research, the "Interview Form" developed by the researcher was used to examine the opinions of pre-school teachers and prospective teachers on the concept of "scientific disposition". In the "Preschool Teacher / Prospective Teacher Scientific Disposition Interview Form", there are 4 open-ended questions to determine the opinions of teachers and prospective teachers on "scientific disposition". The opinions of 10 experts, including 7 specialists in preschool education, 1 specialist in the field of assessment and evaluation, 1 specialist in guidance and psychological counseling and 1 specialist in sociology, were taken as to whether the questions are appropriate for the purpose of the research and whether they reflect the in-depth views about scientific disposition. In accordance with the opinions, the scope validity rates defined by Lawshe (1975) were calculated for each item in accordance with their views as "appropriate", "partially appropriate" and "unsuitable" as to whether the questions were appropriate. This technique, also known as the Lawshe technique, is calculated using the KGO formula. N is the number of experts who call the item used here and N is the total number of experts who express their opinions. According to the KGO account, which was converted into a table by Veneziano and Hooper (1997), the minimum critical point of KGO was determined as 0.62, since 10 experts were asked in the research. The "Interview Form" was used in this context. The scope validity ratios (KGO) of the items in the "Preschool Teacher / Prospective Teacher Scientific Disposition Interview Form" vary between 0.80 and 1.00. In order to calculate the reliability of the items based on the expert opinion of the interview form, the reliability formula [Reliability = Consensus / (Consensus + Disagreement)] proposed by Miles and Huberman (1994) was used. According to this formula, the reliability coefficients of the items in the visual form vary between 0.90 and 1.00.

Results

The results of the research conducted to reveal the opinions of preschool teachers and prospective teachers on the "scientific disposition" are presented in Table 1.

Tablo 1.

Distribution of responses regarding the meaning of the term "scientific disposition"

	Opinions	f	%
Teacher	• ***To be scientifically oriented and interested in science, to be predisposed to scientific matters***	31	62
	• The development of scientific skills, the ability to perceive and recognize the problem, to carry scientific information to daily life	12	24
	• Science and natural studies, estimation based on current situations, cause-effect concepts	7	14
Prospective Teacher	• ***To be scientifically oriented, to be curious and interested in science, to research***	41	82
	• To investigate, to be eager to learn, to search for evidence for the correctness of knowledge, to question what you think	9	18
Total		50	100

In Table 1, 62% of preschool teachers' responses to the concept of "scientific disposition'' are expressed as "orientation and interest in science, disposition towards scientific issues", and 82% of prospective teachers responses include "curiosity towards science, curiosity and interest in scientific events, doing research"

The results of the research conducted to reveal opinion the teachers and prospective teachers regarding on the scope of the "scientific disposition" is presented in Table 2.

Table 2.

The distribution of the answers regarding the scope of the 'scientific disposition' expression

	Opinions	f	%	n=50
Teacher	• ***Includes science, nature and math activities, experimental studies, trip-observation studies.***	33	66	
	• Includes the ability to express thoughts, find gather and utilize information, independent thinking and reasoning	9	18	
	• Education, teaching, cultural activities, artistic and professional activities, institutions	8	16	
Prospective Teacher Öğretmen Adayı	• ***Covers all topics affecting scientific thinking, scientific research and science***	25	50	
	• Research covers invention, science, nature and math activities	13	26	
	• It can be for any subject and purpose and covers everything	12	24	

In Table 2, it is seen that 66% of the responses of preschool teachers define the scope of the concept of "scientific disposition" as "including science, nature and math activities, experimental studies, trip-observation studies", and 50% of prospective teachers' definition says "it covers all topics that affect thinking, scientific research and science."

The results of the research conducted to reveal opinion the teachers and prospective teachers regarding on the studies conducted to develop the "scientific disposition" is presented in Table 3.

Table 3.

The distribution of the responses given to the studies conducted to develop the "Scientific Disposition"

	Opinions	f	%	n=50
Teacher	• ***Scientific activities, science and nature studies, experiments,*** **travel and observation studies**	31	62	
	• Understanding the environment, creating a stimulating environment, enabling them to learn by doing and living	10	20	
	• Improving problem solving skills, presenting problem situations	6	12	
	• No idea	3	6	

Prospective Teacher	• ***Science activities, experiments, activities that will develop a sense of curiosity, research and inquiry studies and watching documentaries***	37	74
	• Directing children to observe, research and discover, benefitting from current scientific events	9	18
	• No idea	4	8
Total		50	100

In Table 3, it is seen that when asked about activities to improve 'scientific disposition', % 62 of teachers referenced "scientific activities, science and nature studies, experiments, travel and observation studies", while 74% of prospective teachers referenced "Science activities, experiments, activities that will develop a sense of curiosity, research and inquiry studies and watching documentaries"

Table 4.

Distribution of responses given to the suggestions

	Opinions	f	%	n=50
Teachers	• ***I'm not too informed about scientific disposition, scientific education should be emphasized in undergraduate classes***	32	64	
	• Not answered	18	36	
Prospective Teachers	• ***I think that the scientific disposition is important and should be gained from an early period, more should be included in the school and education program, and teachers and prospective teachers should be educated.***	25	50	
	• Not answered	25	50	
Total		50	100	

In Table 4, when the suggestions of preschool teachers and prospective teachers regarding "scientific disposition" are examined, it was seen that 64% of the preschool teachers stated that "I do not know much about the scientific disposition, and emphasis should be given to science education in undergraduate classes." It was seen that 50% of the prospective teachers stated that "scientific disposition is important and it should be

gained from the early period, it should be included more in school and education program, and teachers and prospective teachers should be given education".

Discussion and Conclusion

The scientific studies carried out in early period are the most effective method in which children can gain more experience about learning and get more information through actively observing the incidents and events that ocur out of their control. Science is the most reliable method that human brain can make use of and support it's evolution and it includes the belief and values peculiar to the development of scientific information (Güler & Akman, 2006; Trundle & Saçkes, 2015). Children begin to gain many of the concepts about science in early period and discover their surroundings through their senses; that is, thay watch, touch, smell, hear and taste. They want to know everything around them with the feeling of curiousity they have (Lind, 2005). By looking at the basic characteristics of the children in early period, this research focuses on the determination and definiton of their inborn scientific tendencies related to their curiosity and interest in scientific concepts. From this point of view, this research has been carried out for the purpose of examining the views of teachers and prospective teachers about the scientific disposition concept in preschool period. In this respect, this research has been handled through case study, one of the qualitative research methods.In accordance with this research's purpose, "Interview Form" has been used in order to examine the views of the preschool teachers' and prospective teachers' about "scientific disposition" concept. In preschool teacher/prospective teacher scientific disposition interview form, four open-ended questions have been handled to determine the views of teachers' and prospective teachers' about "scientific disposition".

In the findings obtained in accordance with the first goal of the research, it has been observed that preschool teachers and prospective teachers interpret "scientific disposition" differently. While majority of teachers regard "scientific disposition" as "heading for science and showing interest in it, inclination to scientific subjects", majority of prospective teachers interpret it as "heading for science, curiosity and desire for scientific events and doing research".

When the related literature on the concept of 'scientific disposition' is examined, it is observed that the majority of sources on early period development emphasize that children have intense interest and curiosity towards science and phenomena related to science (Akman, Üstün & Güler, 2003; Conezio & French, 2002; Gelman & Brenneman, 2004; İnan Kaya, 2016; Mayesky, 2007; Leung, 2008; Lindblom & White, 2011;

Saçkes, Trundle, Bell & O'Connell, 2011; Trundle & Saçkes, 2015). Katz (1993) on the other hand, says that children who frequently ask questions, are frequently curious, observant of their surroundings and questioning of people around them have a high disposition to be curious. When defining the concept in this context, "disposition" is seen as more of a "constant mental habit" that will emerge regardless of activities to promote it (Campbell-Barr, 2017). This can be cited as an example of operant behavior put forward by B.F Skinner. Because the behavior is not created by a known stimulus; it is introduced by an organism and also emerges spontaneously (Aydın, 2000). For example; being with the children who look though the leaves of the trees in the garden, feel the wind and reason where the wind comes from, watching those kids are the major indicators that children have strong tendencies to learn, to know, to improve and to grow up.

Children who collect stones dig up dirt to look for worms have indicators that they have a natural inclination to experience and discover natural things Children actively engage with their environment in line with their innate dispositions. In these ways, they begin to build various skills spontaneously. (Aktamış & Ergin, 2007; Trundle, 2009; Morrison, 2012). For this reason, the biological structures, emotional temperaments and dispositions of the children towards science and science are strengthened (Conezio & French, 2002; Davies & Howe, 2003; Alisinanoğlu, Özbey & Kahveci, 2007; Altun & Demirtaş, 2013), and indicator dispositions in learning such as independence, creativity, intrinsic motivation and flexibility can be monitored and evaluated. When all these are taken into consideration, it has been observed in the research that teachers and prospective teachers mostly use similar expressions when they define the term "scientific disposition". Besides, as a starting point of the term "scientific disposition", "the interest, curiosity and desire" the children have for the science have attracted attention. As a result, it can be said that there is parallelism between the research findings related to the meaning of the term "scientific disposition" and the related literature and studies in the field.

Another finding obtained in accordance with the second goal of the research is that the answers preschool teachers and prospective teachers give related to the concept of the "scientific disposition" show differences. Accordingly, it has been revealed that majority of the teachers define the concept of "scientific disposition" as "it includes science, nature and maths activities as well as experimental works and expedition-observation studies", while half of the prospective teachers define it as "it encompasses all the subjects that affect scientific thinking, scientific research and science itself."

When the literature in the field is examined, science is defined as a method which embraces many themes such as living things, the relationship among living things, space, rain, stars and stone types. From this point of view, everything in universe is handled in the scope of science for the children to explore, discover and apply their skills systematically to certain sub-disciplines.

Young children, on the other hand, are natural scientists who observe people, animals, scientific facts, objects, experiment and report their discoveries (Akman, Üstün & Güler, 2003; Mayesky, 2007; Lindblom & White, 2011). In order for children to learn science and to do science, it is necessary to reach their motivating feelings in order to increase their confidence in science skills and at the same time to develop a positive attitude towards science. For this reason, it is extremely important to know the direction of their dispositions in order for children to learn and to be systematically involved in the scientific process.

According to different sources in the literature, the main scientific fields that attract children's education in the early stages and categorize their interest in sciences are: life sciences, physical sciences, earth and space sciences (National Science Educational Standards, 1994; Charlesworth & Lind, 1995; Work & Grollman, 2003; Alisinanoğlu, Özbey & Kahveci, 2007; District of Columbia Public Schools, 2008; Akman, Balat & Güler, 2010; Kandır, Can Yaşar & Tuncer, 2011). Some sources also include ecology into this grouping (Kandır, Can Yaşar & Tuncer, 2011). Core themes and concepts included in the basic science fields can be; matter (solid, liquid, gas), energy (heat, sound, electricity, motion and magnetism), gravity and balance, numbers, geometry, movement of objects, location, energy, light, sound, life cycle, functions of organisms, earth, rocks and celestial bodies, etc.. At the same time, in line with the disposition of children to be scientifically literate from an early stage, they frequently turn scientific books, stories, pictures and events (Noyes, 2000). Accordingly, everything around children concerns science and can be subject to science. It is necessary to pay attention to different points in children such as recognition of dispositions, the determination of concepts or materials, the creation of scientific educational environments to support scientific disposition, planning of the learning process, the role of the teacher – including positive attitudes towards science and other characteristics.

When the findings obtained through the research and related literature in the filed are evaluated, it draws attention that teachers use expressions aimed at techniques and methods used more in science when they explain "scientific disposition", while prospective teachers use more extensive expressions about the scope of "scientific disposition". Accordingly, it

can be said that the expression, "Scientific disposition encompasses all the subjects that affect scientific thinking, scientific research and science itself", which prospective teachers associate with the scope of scientific disposition, signifies a broader meaning in related literature.

The finding obtained in accordance with the third goal of the research is that the explanations, teachers and prospective teachers make about the studies they carry out to improve "scientific disposition" in training program applications, bear some similarities. It has been observed that preschool teachers, in their applications to improve "scientific disposition", mostly describe it as "scientific activities, science, nature studies, experiments and expedition-observation studies", while prospective teachers mostly describe it as "science activities, experiments, the activities that are to promote the feeling of curiousity, studies aiming at research and investigation, and watching documentary studies".

A number of mechanisms (assimilation and regulation) that Piaget anticipates for cognitive development and change explain scientific learning in early childhood (Alisinanoğlu, Özbey & Kahveci, 2007). The support and strengthening of the scientific disposition that leads children to scientific phenomena after acquiring mental concepts through these mechanisms is related to the stimulating environment offered to children. For this reason, teachers and parents who will guide the children in the learning process in the early period should be aware of how the scientific dispositions is developing and how the process is affected. For example, many children have an innate interest and curiosity about dinosaurs and their lives. If this interest in dinosaurs is and the disposition of this nature is promoted by the child's teacher and family, then this disposition will strengthen. Otherwise, the child's natural inclination towards the subject will wane.

Children learn and get excited about the topics they are interested in, when they are successful in acquiring new knowledge and skills. This excitement directs children to pursue knowledge and skills slightly above their current qualification level in line with their dispositions. Children who master learning tasks are motivated to learn. Alternatively, young children tend to fail when it comes to a difficult task or lack of stimuli. A child who fails repeatedly in both cases stops learning (Kostelnik, Soderman, Whiren & Rupiper, 2019). Therefore, adults play an important role in regulating the learning process in order to offer motivational and supportive learning tasks instead of disturbing children or weakening their dispositions.

The study entitled "Developing the disposition to be a reader: The role of the teacher" by Noyes (2000) aimed to explore the disposition

of children to be literate and the role of teachers in supporting or losing these dispositions. In the research, it was emphasized that while most of the children have an innate disposition towards books and literacy, some children continue this trend as they grow up, and some children lose it. This study examines the role of the educator in developing and maintaining this disposition in young children. The results of the research focus on supporting sustainable dispositions in children in rich home and school environments that support the current literacy disposition. Accordingly, the results of the study reveal that the climate of the classroom and the attitude of the teacher in the early period may encourage this development or prevent its development.

In another result of the research, there are differences in the way that preschool teachers and prospective teachers believe that activities can be instated to ensure the creation of supportive environments for scientific dispositions. It can be said that the answers given by the prospective teachers are more comprehensive in terms of "scientific disposition" and supportive of a more comprehensive scientific disposition. Also included in the research findings of prospective teachers, because they focus on the sense of curiosity, which is the starting point of the scientific process, and establish a connection in terms of employing research and inquiry skills, they can be considered to have higher awareness of the concept of 'scientific disposition'.

When teachers' and prospective teachers proposals about "scientific disposition" were examined, it was seen that they mostly said about "scientific disposition", "I don't have much information, application should be given more importance in undergraduate lectures about scientific training" . Whereas, prospective teachers mostly said "I think that scientific disposition is important and it should be taught from early period onwards, it should be given more room in school and training programmes, teachers and prospective teachers should be given training".

When the characteristics of effective teachers are considered, one might expect to see: being well-respected by colleagues, personnel, family and the society, as well as being able to work well with the students in the class, and being confident in one's ability to teach. Teachers, who are expected to strengthen children's own innate sisposition, are also expected to be able to cope with different obstacles and show the disposition to adhere to their own profession. Some of these dispositions – some of them similar to children's dispositions – are eagerness to learn and curiosity, self-awareness, inner motivation, humor, joviality, helpfulness, perseverance, high expectations, quest for challenge, being able to congratulate someone else's time, effort and inputs, and respecting others (Perkins, Jay & Tishman, 1993; Claxton & Car, 2004; Car, 2006;

Campbell-Barr, 2017). Qualified teachers accept and appreciate children's efforts in the learning process. Instead of making general statements such as "a good job" for learning tasks, it would be more beneficial for them to provide certain feedback such as "You have used too many colors". Especially they should avoid using external rewards (chocolate, sugar etc.). In addition, teachers who create class moral values that value collaboration rather than competition manage to create conditions that support trends and development (Ros-Voseles, Fowler & Haughey, 2007). Accordingly, effective early childhood teachers or prospective teachers who are aware of their roles in strengthening desired dispositions in children should be aware that they send certain messages to children with their behavior and attitudes. In the early period, teachers are curious about supporting the dispositions of the children and if they carry out creative practices, it is likely that the dispositions of the children will strengthen in the educational environment.

When the findings obtained and the related literature given above are evaluated together, it is revealed that preschool teachers and prospective teachers, when it comes to the supporting children's learning and disposition, are not appropriate for efficient teacher responsibility because of the need and deficiencies about the awareness and disposition concept in the pedagogic education they receive, and their perceived teacher model and characteristics. It is seen that teachers and prospective teachers do not have much knowledge about the concept of "scientific disposition" and they have common sense in that they both think that they should receive training. Accordingly, teachers and prospective teachers, about the tendencies that children have and especially the concept of "scientific disposition, can be provided with support by carrying out studies to identify the disposition, to guide for events like observing and evaluation, and in this respect, to give information and to plan and to apply supportive activities.

In early stages, a teacher's attitude towards science and scientific dispositions has a particularly notable effect on a number of things, including a child's future academic success, their scientific thinking skills, scientific processing skills, problem solving abilities, and the development of their scientific literacy. Accordingly, in light of data obtained from the research, the following suggestions are presented:

- There can be informative studies both for the prospective teachers and teachers aimed at the concept of "scientific disposition" in early period. For the purpose of increasing their methodological knowledge and their awareness, in order to improve desired tendencies of children, there can be organized, about the studies they can develop, applied

workshops, informative seminars, inservice training studies for teachers and prospective teachers.

- For prospective teachers, practices for recognizing, monitoring and evaluating dispositions in content-appropriate courses can be implemented.
- Comparative and similar studies can be conducted by taking the opinions of teachers and prospective teachers in different sample groups.
- While developing education programs in the early period, “disposition” oriented acquisition and indicator determination studies can be done.
- Tools can be developed to identify, monitor and evaluate the 'scientific disposition'.
- Different study patterns can be planned in order to identify different disposition types that children have.
- In line with the characteristics of the tendencies that occur in children, there can be interdisciplinary studies based on the strong relationship between breain-senses-scientific thinking and learning.

Limitations and Recommendations

This work is restricted by it considers, sampling methodology, and sampling size. This work is limited to the specified sample group. Studies can be done by expanding the sample group. The research subject is limited to the concept of scientific disposition. Studies can be planned with different types of trends. Finally, qualitative research methods were used in the study. Different data collection tools can be developed to scale the scientific disposition.

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Chapter 4

DEVELOPING A PSYCHOEDUCATION PROGRAMME ON COPING WITH ADDICTION TENDENCIES OF UNIVERSITY STUDENTS VIA VALUES AND NEGOTIATION

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1. Introduction

Individuals develop various ways of coping with the difficulties they face in their lives. While some of these ways contribute positively to the life of the individual, sometimes they lead to dysfunctional attitudes. The long-term social isolation and quarantine processes that emerged as a result of the COVID-19 epidemic increased the levels of stress and anxiety in individuals and brought feelings of uncertainty and loneliness about the future. Social distancing and staying away from face-to-face contact and contact with people; self-isolation of people to avoid illness, and restrictions on urban and inter-country travel led to a reduction in the workforce in all economic sectors and caused many jobs to be lost (Nicola, Alsafi, Sohrabi, Kerwan, Al-Jabir, Iosifidis, Agha & Agha, 2020). People try to cope with both the threat of infection and the consequents of losses they live (Cullen, Gulati, Kelly, 2020). Mental health care providers have a crucial role in monitoring psychosocial needs and delivering psychosocial support to the public (Pfefferbaum & North, 2020). Individuals sought new ways of coping to get rid of all these negativities, and these attitudes led to the development of various types of addiction (Kazan Kızılkurt & Dilbaz, 2020).

Addiction is when a person is unable to change the negative situations individual experiences, individual is overly attached to an object or action that individual performs in order to escape from real situations (Savcı, 2015) and uses it much more than its purpose (Kaman, 2019). Addiction is a material or behavioral disorder in which a person tends to meet her needs for pleasure, satisfaction and attachment, as well as her needs for love, power, fun and belonging (Eryılmaz & Deniz 2021). There are risk factors including the negative relations with family and friends, or with social environment, also some personal factors such as the lack of meaning towards life or towards the future, lack of pleasure, predisposition to pessimistic thinking, inability to realize the characteristics of inner real and ideal self are also factors that trigger the emergence of addiction (Savcı, 2015; Turkish Green Crescent Society, 2017). An individual diagnosed with a mental health disorder may already have negative coping skills in normal life conditions, and may have low life satisfaction and life expectancy. Therefore, it is thought that the risk of COVID-19 infection may increase in people with substance addiction, behavioral or substance use disorders, and in people with already mental health disorders, and it may be more negatively affected during the pandemic restrictions process (Cullen,Gulati,Kelly, 2020). It has been indicated that university students and adolescents are at risk for addictions, if there is use and access in the family, and if the stress level is high, the young person may turn to material or behavioral addictions (Eryılmaz & Deniz 2021).

Nicotine or tobacco (cigarette) addiction is one of the types of addiction covered in this study. In the studies conducted, it was seen that the majority of individuals who showed smoking behavior could not quit, although they wanted to quit smoking, which enabled nicotine to be defined as an addictive substance (Özendi, 2006). This addiction is thought to be the biggest reason behind the inability to quit smoking and the failure of attempts at healthy treatment (Care, 2000). University students and adolescents are at risk for smoking, indeed they may start to use at early adolescence (Uslu, 2021). There are some theories about the reasons for smoking. When these theories are examined, it is explained that the first, it is a habit, the second is the unconscious reflection of the desires suppressed in childhood, the third is the curiosity and excitement seeking of individuals with low self-esteem, and the last is the conscious consumption of smoking (Yorgancıoğlu, 2000). Studies have shown that peer influence and academic stress increase tobacco addiction (Çapık & Cingil, 2013; Baykan & Naçar, 2014).Interventions for nicotine addiction are generally cognitive behavioral approaches, motivational approaches, telephone and internet-based intervention approaches, behavioral group therapies, and self-help approaches (Uslu, 2021). In addition to substance addictions, there are also behavioral addiction types that cause undesirable consequences in the life of the individual.

Behavioral addiction includes addiction types that do not contain chemicals, besides people become addicted to some behaviors such as using internet and smartphone, shopping, eating, sex, and playing games (Koca & Tunca, 2019). In present study, we consider internet addiction and also shopping addiction. First off all, with the pandemi process, all kinds of activities in life became online. Children and young people used to be the most risky age group in terms of internet addiction (Asıcı, 2021), now it is thought that they are under more risk with the pandemic process and the online education. The rapid introduction of technology into our lives has enabled the internet to play an indispensable role in our lives. As a result of this rapid development and flow, many technological devices have become tools that we cannot separate from us and have become a part of our lives. This increase brought along various problematic uses for university students (İkiz, Asıcı, Savcı& Yörük, 2015) and caused the concept of internet addiction to be heard frequently especially due to pandemic restrictions (Pfefferbaum & North, 2020), also for online gaming (Cullen, Gulati, Kelly, 2020; Savi Çakar, 2021), for social media and smartphone use (Satıcı, 2021). When various criteria used in defining internet addiction are examined, common diagnostic criteria are; being in constant mental occupation, thinking about the activities to be done on the internet, using it for a longer time than planned, making

repeated unsuccessful attempts to control and quitting, disruption in social functions, tension caused by staying away from the internet and the emergence of anger emotions (Young, 2009; Shapira, Lessig, Goldsmith, Szabo, Lazoritz, Gold & Stein 2003; Tao, Huang, Wang, Zhang, Zhang, & Li, 2010).

The internet has fun and interesting content. The internet is constantly open and easy to access. There are high levels of reinforcing stimulants through games or social media connections and followers. Besides, people have the ability to establish virtual social relations that cannot be able to establish in real life, people can be more comfortable in the virtual environment worldwide; the familiarity of young people with digital tools are some of the features that make individuals addicted to the internet (Greenfield, 2011). Apart from these, the continuation of activities such as education, working, socialization on the internet during the pandemic period has become more important in people's lives in order to ensure the continuity of daily life, however, internet use has a potential that may become problematic, especially during and after the pandemic (Kazan Kızılkurt & Dilbaz, 2020). Two approaches, pharmacotherapy and psychotherapy, are used in the treatment of the internet addiction. The most effective approach used to treat internet addiction is cognitive behavioral therapies. Thanks to this therapy approach, individuals become aware of their beliefs that lead to the emergence of these behavioral attitudes. Individuals identify these thoughts and beliefs and learn to deal with them in the process, and these coping techniques taught during the treatment process are also used to prevent the reapperance of addiction (Asıcı, 2021).

When the researches are examined; Internet addiction is associated with attention deficit and hyperactivity, is positively associated with neurotic personality trait, and is positively associated with self-esteem, life satisfaction, and responsibility (Çınar & Mutlu, 2019; Onur, 2019). As university students' excessive internet use increases, their loneliness levels decrease (Hebebci ve Shelley, 2018) and it has been observed that there is a positive and significant relationship between internet addiction and cognitive distortions related to interpersonal relationships (Demir, 2019). With the spread of the internet so much, young people have faced with many social media applications, and these applications have become increasingly popular. Children and adolescents who frequently use social media applications such as WhatsApp, Instagram, and Snapchat, which mostly cover the period of the millennium, are called 'digital natives' (Grau, Kleiser, & Bright, 2019).

There are some factors explaining social media addiction. When individuals' use of social media outstrip their daily work and responsibilities, when it causes failure in face-to-face relationships and interactions, when

individuals become uneasy and anxious if they do not control their social media accounts, when their academic success negatively effected, when virtual situations and environments begin to be perceived as reality, perception deteriorates and when there is a lack of attention, when there is an increase in anger, stress, and panic that appear with the use of social media, it can be said that social media use reaches the level of addiction (Çiftçi, 2018). In dealing with addiction types, it is possible for the person to reach social media by a phone, computer, tablet, etc. usage should be controlled gradually instead of keeping them away from vehicles. It is possible to prevent addiction by limiting the duration of screen use from an early age (Satıcı, 2019). Studies have revealed that there is a negative relationship between social media addiction and communication skills (İliş & Gülbahçe, 2019). Similarly, a positive relationship was found between social media addiction and social exclusion, and a negative relationship between social media addiction and self-control (Kaşıkçı, Denli, & Karaman, 2021). Another variable addressed with social media addiction is gender. It has been revealed that male students cannot act in control, experience conflict within themselves and are more dependent than female students (Çiftçi, 2018). On the other hand, there are studies asserting that female university students' smartphone addiction levels are higher than male students (Erdoğan, Yılmaz, & Özçekiç, 2019).

Shopping addiction is examined within the scope of this research. In addition to buying the things they need, individuals do shopping for the purposes of reaching the popular thing, conforming to fashion and imitating (Odabaşı, 2006). Recurring and uncontrollable purchasing behavior, re-shopping and a vicious cycle can result in behavior patterns such as feeling good or bad, regret, guilt, debt, depression, social isolation, and low self-esteem (Korur & Kimzan, 2016). When shopping addiction risk factors are examined, these individuals generally experience adjustment problems and mental disorders, lack of self-integrity, low self-esteem, impaired perception of money and income level, different effects of different age periods, difficulty in making decisions, being a perfectionist, having false beliefs about purchasing. In addition, some features such as finding a safe source of social support, being thrifty and saving money, making budget arrangements can be protective factors for shopping addiction (İkiz, 2021). When studies on shopping addiction were examined, it was determined that extroversion, responsibility, and neuroticism characteristics affect compulsive purchasing behavior (Özhan & Akkaya, 2018).

It has been revealed that hedonic shopping help people to escape from reality; protect and regulate negative mood; self-preservation tendencies significantly predict shopping addiction (Kirezli & Arslan,

2019). A study examining the effect of personality traits on compulsive purchasing behavior revealed that being aware of the responsibilities in life and caring about fulfilling them; and being able to achieve emotional balance have a negative effect on compulsive purchasing (Yüce & Kerse, 2018). In addition, it was concluded that participants with high levels of shopping addiction had high levels of psychological symptoms such as depression, anxiety, negative self, somatization, and hostility (Yılmaz, 2019). Similarly, in another study conducted with 578 people, it was determined that internet addiction, impulsivity, depression-anxiety-stress, and materialism predicted compulsive online purchasing behavior (Bozdağ-Türker, 2019).

The fact that people who have constructive functional thinking, who have positive beliefs; who have healthy and mutually beneficial relationships means that they have protective factors against addictions (Eryılmaz & Deniz). However, people may experience conflicts when their values and beliefs are challencing and differentiating with each other. If people's communication with each other is problematic, if one lives that he cannot express himself and experiences not being understood by the other, if one has difficulty in expressing own self to the other, verbal violence and abuse occurs, person's mental health is adversely affected. Unhealthy communication networks lead people to avoid negative moods and to cope with the resulting stress. The individual may turn to both material and behavioral addictions as a destructive coping way. As a crisis and trauma process, the pandemic process caused people to be closed together for a long time in the family, business life started to be carried out at home, it caused anxiety in family relationships and difficulties in relationships (İkiz, 2020). In this study, mediation and negotiation emerge as an important solution method used in conflict processes (Demirci & Arslan, 2020). Mediation improves the perception of people in conflict about their daily problem-handling processes, decision-making processes, values and powers, it plays an important role in developing acceptance, understanding and empathy of individuals regarding the conditions, the values and the views of others (Bush & Folger, 2013). Literature shows that conflict resolution studies lead positive outcomes and recover relations (İkiz, Balkan, Şensoy, Çatal & Balcı, 2018).

Considering the reasons for the occurrence of addiction above, it is seen that the use of mediation and negotiation methods, enhancing values and believes are believed to be beneficial to prevent addiction. Therefore, it was thought that university students, who we understand to be at risk in terms of addictions, may have addiction tendencies due to the fact that life is online in all aspects during the covid 19 pandemic, and they experience various restrictions in their education and social relations. It

was aimed to develop a psychoeducational program in which they could both understand the phenomenon of addiction, its process cycle and its causes, develop their thinking and affectivity functions functionally, recognize and develop their values, and thus improve their communication skills and reconciliation skills. The purpose of this study is to develop a psychoeducation programme on enhancing the coping skills of addiction tendency of university students. According to this aim, Coping with Addictions Via Values and Negotiation Psychoeducation Programme (CAVNPP) is established. The content, the process and the effectiveness of CAVNPP from the phenomenological views and personal gains of university students are examined. The problem statements created within the scope of the current research are as follows:

1. What are the opinions of university students regarding each session of Coping with Addictions Via Values and Negotiation Psychoeducation Program?

2. What are the opinions of university students regarding the activities and methods sustained throughout the sessions of Coping with Addictions Via Values and Negotiation Psychoeducation Program?

3. What are the opinions of university students about the process in general?

2. Method

2.1. Method and purpose: In this study was used the convergent parallel mixed design one of the mixed method designs in which qualitative and quantitative data were collected together. Qualitative method was used to get the opinions of the participants at the end of each session and the quantitative method was used to evaluate the entire process. When in-depth information is needed in educational sciences and social science research, mixed designs can be preferred to use quantitative and qualitative data together (Creswell, Plano Clark, Gutmann & Hanson, 2003).

The phenomenological views and personal gains of university students are determined and evaluated. Session evaluation forms and a final survey were developed by the researchers. According to Creswell (2014), the timing of collecting quantitative and qualitative data in mixed research designs can be concurrently or sequential. The quantitative and qualitative data obtained in this study were collected sequentially, the analyzes were done separately and the findings were integrated.

In the qualitative data collection phase of the study, opinions of each participant about the session were taken with the session evaluation form at the end of each session. This form was created by researchers and

consists of 4 open-ended and 7graded , totally 11 questions given below on Table 1.

In the quantitative data collection phase of the study, at the end of the 8-session psychoeducation program, a process evaluation survey was prepared by the researchers in order to evaluate the process. A process evaluation survey consisting of 10 questions was applied to the participants.

The opinions obtained from the session evaluation forms were firstly classified around some themes. Then, the data obtained from this table were analyzed by comparing with the data obtained from the process evaluation survey and the results were interpreted.

2.2. Study Group: Study was conducted through 2020-2021 winter education period. In order to determine the groups, an invitation was made to whole 300 students who took Addiction and Addiction Intervention Course given by the first researcher. Originally 25 students want to attend. Participants were selected according to their accessibility and the school contact with the university and 20 students (18 girls (90%), 2 boys (10%)) were volunteer. Whatsapp group was established to communicate with the participants, to contact with each other and to send resources. Research was conducted online by Google meetings planned by the researchers from .

2.3. Data Collection Tools and Data Analysis:

2.3.1. Session evaluation form: Each session has its own strengths and weaknessess. Every person has different phenomenological experiences and gains through sessions during group application processes. So, researchers established session evaluation forms according to the dynamics and aims and application procedures of each session. The type of form is given on Table 1.

Table1. Session Evaluation Form

Evaluation themes	Evaluation Questions	Evaluation Scale
Relation with the aims	1. I think today's session is related to the aims of the program.	From Totally Disagree(1) to Strongly Agree (5)
Achieving goals	2. I think today's session helped the program achieve its goals.	From Totally Disagree(1) to Strongly Agree (5)
Satisfaction	3. I think the content of today's session is satisfactory.	From Totally Disagree(1) to Strongly Agree (5)

Meeting expectations	4. In today's session, the things I wanted to emphasize and talk about were discussed.	From Totally Disagree(1) to Strongly Agree (5)
Acquiring knowledge and skill	5. I think today's session helped me acquire new knowledge and skills.	From Totally Disagree(1) to Strongly Agree (5)
Effectiveness of group leader	6. Today I think the group leader managed the session well.	From Totally Disagree(1) to Strongly Agree (5)
Active participation	7. I felt active in today's session.	From Totally Disagree(1) to Strongly Agree (5)
Usefulness of applied activities and methods	8. Rate how useful / useful the following activities and methods are: 1.Warm-up exercises, 2. Group discussion, 3.Worksheet, 4. Role Playing	From Not useful (1) To Very useful (5)
Suggestions for more useful activities	9. Are there any activity / discussion / content etc. that you think would be more useful if more time was allocated in this session?	Open ended
Suggestions for not useful activities	10. Are there any activity / discussion / content, etc. that you do not think is useful, you want less time in this session?	Open ended
Other comments	11. Please tell what you think of this psychoeducation programme overall	Open ended

2.3.2. Survey: Data was collected by a survey established by the researchers. Survey included ten closed-ended questions, in which each answer can be either yes, no or sometimes, were send online to participants after the end of programme. Responds were analysed through descriptive analyze, numbers and frequencies. Survey questions are given below:

1. Did you adapt to the group process?

2. Do you believe that the sessions held contributed to the individual?

3. Do you think that working in the field of combating addiction has an effect on reducing addiction?

4. Do you think the sessions organized have brought you awareness?

5. Have you been able to develop alternative ways of increasing communication skills and self-disclosure?

6. Do you think you have learned to control and manage emotions, thoughts and behaviors?

7. Do you understand the values and values that should be possessed in the process of combating addiction?

8. Have you learned the principles and steps of negotiation skills?

9. Do you understand how mediation practices can be used to combat addiction?

10. Have you had changes in your feelings, thoughts and behaviors related to addiction?

2.3.3. Personal Information Form (Questionnaire): This form was established by researchers as five close ended questions, in order to obtain data about participants' gender, age, grade level and department.

2.4. Design of Coping with Addictions Via Values and Negotiation Psychoeducation Programme (CAVNPP): Psychoeducation programs are a basic psychological counseling group work (Karaca ve İkiz, 2014). In groups formed with the participation of individuals with common needs or problems and with the participation of volunteers, both information is given on the subject and various activities are carried out regarding the skills desired to be developed in line with the scope. By ensuring active participation of the participants in the process, it is aimed to make the most of the activities.

This programme was established by the researchers. The programme has 5 parts, 8 sessions. It is applicable through two months, one session a week. Each session lasts at least three hours. As a result, a 24 hour programme established. The structure and the objectives of the programme were given below on Table 2.

Table 2. Structure and Objectives of CAVNPP

	Objectives	Activities	**Session**
1.Part: Introducing addiction concept with whole dimensions (what it is, its resources, physical and emotional symptoms) and understand the role of basic communication skills in the occurance of addictions	1.1.Helping group members meet and introduce each other	Introduction activity	1
	2. Establishing group process	Meeting play	
	3. Establishing rules with members	Establishing rules	
	2. 1.Understanding addiction construct	Using pictures	2
	2. Internalizing the role of inner and interactive effective communication in addictions	Using forms Using vignettes	
	3. Discriminating ineffective relationship and effects on addictions	Using forms Using vignettes	

2. Part: Understanding the roles of values and emotions in the occurrance of addictions	3.1.Learning the effects of values on addictions 2.Analyzing values in life and through addictions	Discussing and filling in the form about addiction avoking or avoiding phrases	3
	4.1. Understanding emotions and feelings in addictions 2.Understanding how to regulate emotions in order to give up addictions	Using pictures to differentiate physical and emotional physical symptoms, scanning written media, establishing bulletin and creating a catchphrase	4
3.Part: Motivation for change	5.1.Applying and teaching relaxation training	Relaxation training	5
	2.Understanding and using coping skills	Thought recording format	
	3. Noticing strengths, weaknesses, negative thoughts, beliefs and irrational attitudes	Reframing applications	
4.Part: Conflict resolution and negotiation techniques for not to be addicted, to quit addiction	6. 1.Knowing functional and non-functional conflict resolution types 2.Understanding the importance of using functional ways in conflict resolution 7. 1.Understanding and trying the negotiation technique	Role playing, question and answer activity on vignettes	6-7
5.Part: Integrating skills and termination	2.Understanding the importance of roles and values in the negotiation process 3.Applying the negotiation technique 8.Transferring obtained knowledge and coping skills to real life situations	Role playing, question and answer activity on vignettes	8

While developing the psychoeducation program, literature on the subject was scanned, outstanding needs were identified, and the most effective skills and techniques were selected to meet these needs. Activities and its order are all original because cognitive therapies, mindfulness research, positive psychology and preventive counseling approaches besides the previously mentioned studies establish our source of inspiration and we emphasize cooperative play, role playing, analyzing pictures and newspapers, relaxation training, examining vignettes which are suitable for the cognitive and psychosocial developmental levels of university students.

3. Findings

Findings regarding the demographic characteristics of the participants are presented in Table 3.

Table 3. Distribution of the participants according to their demographic characteristics (n=20)

		F	%
Gender	Female	18	90.0
	Male	2	10.0
Age	19-20	12	60.0
	21-23	7	35.0
	23+	1	5.0
Grade Level	2. Grade	9	45.0
	3. Grade	11	55.0
Department	Psychological Counseling and Guidance	9	45.0
	Primary School Teaching	3	15.0
	Biology Teaching	3	15.0
	Other	5	25.0

As seen in Table 3, 90% of the students participating in the study are female and 10% are male students. 60% of the students are 19-20 years old, 35% are 21-23 years old and 5% are 23+ years old. 45% of the study group are in the second grade and 55% are in the third grade. 45% of the students participating in the study are students of the psychological counseling and guidance department. 15% of the participants are students of primary school teaching, 15% are students of biology teaching departments, and 25% are students studying in other departments. Participants in the study are 20 students in total. However, the number of students participating in the sessions varies for each session. Findings regarding the evaluation of the opinions of the participants regarding each session held are presented in Table 4.

Table 4. Evaluation of the participants' views on the sessions.

Sessions	Evaluation Scale	Relation with the aims		Achieving goals		Satisfaction		Meeting expectations		Acquiring knowledge and skill		Effectiveness of group leader		Active participation	
		f	%	f	%	f	%	f	%	f	%	f	%	f	%
1 *(n=18)*	4	3	16.7	2	11.1	1	5.6	2	11.1	2	11.1	1	5.6	3	16.7
	5	15	83.3	16	88.9	17	94.4	11	88.9	13	72.2	17	94.4	14	77.7
2 *(n=20)*	4	-	-	1	5.0	1	5.0	1	5.0	2	10.0	-	-	3	15.0
	5	20	100	19	95.0	19	95.0	17	85.0	17	85.0	20	100	13	65.0
3 *(n=19)*	4	3	15.8	3	15.8	3	15.8	3	15.8	1	5.3	1	5.3	1	5.3
	5	16	84.2	16	84.2	16	84.2	15	78.9	17	89.5	17	89.5	13	68.4
4 *(n=17)*	4	2	11.8	-	-	1	5.9	-	-	1	5.9	-	-	3	17.6
	5	15	88.2	16	94.1	16	94.1	17	100	16	94.1	17	100	11	64.7
5 *(n=13)*	4	-	-	-	-	-	-	-	-	-	-	-	-	1	7.7
	5	13	100	13	100	13	100	13	100	13	100	13	100	12	92.3
6 *(n=16)*	4	2	12.5	1	6.3	4	25	3	18.8	1	6.3	-	-	3	18.8
	5	14	87.5	14	87.5	11	68.8	12	75.0	15	93.8	15	93.8	11	68.8
7 *(n=16)*	4	1	6.3	-	-	1	6.3	1	6.3	-	-	1	6.3	2	12.5
	5	15	93.8	16	100	15	93.8	15	93.8	16	100	15	93.8	11	68.8
8 *(n=15)*	4	-	-	1	6.7	-	-	1	6.7	1	6.7	-	-	1	6.7
	5	15	100	14	93.3	15	100	14	93.3	12	80.0	15	100	12	80.0

As seen in Table 4, the views of the students participating in the study regarding each session were evaluated. 83.3% of the students for the first session stated that it was related to the aims of the program. Similarly, 88.9% stated that the session was fit for purpose and 94.4% stated that the content was satisfactory. 88.9% of the students found this session effective in addressing the things that were wanted to be discussed in the session. In addition, 72.2% of the students stated that this session gave them new knowledge and skills and 77.7% of them actively participated in the session. Finally, the group leader's ability to manage the session was found to be 94.4%.

According to the findings, the most prominent feature of the second session was determined as the content being satisfactory. Some of the students' evaluations about the second session are as follows: *"I left the session with a smile on my face. It made me happy to be in a quality and sincere process and to feel that my expectations will be met." (17, F).* According to the results, all of the students stated that they were related to the aims of the program for the second session. Similarly, 95% of them stated that the session was fit for purpose and 95% stated that the content was satisfactory. 85% of the students found this session effective

in terms of addressing what they wanted to be talked about in the session. In addition, 85% of the students stated that this session gave them new knowledge and skills and 65% of them actively participated in the session. Finally, the group leader's ability to manage the session was found to be 100%. Some of the students' evaluations about the second session are as follows:*''It was a productive session where I understood the necessity of effective communication for combating addictions and in our normal life, thank you. (16, F)".*

According to the themes obtained, 84.2% of the students for the third session stated that it was related to the aims of the program. Similarly, 84.2% stated that the session was fit for purpose and 84.2% stated that the content was satisfactory. 78.9% of the students found this session effective in terms of addressing what they wanted to talk about in the session. In addition, 89.5% of the students stated that this session gave them new knowledge and skills and 68.4% of them actively participated in the session. Finally, the group leader's ability to manage the session was 89.5%. According to the findings, the most prominent feature of the third session is that it provides students with new knowledge and skills. This finding revealed that raising awareness by establishing the relationship between values such as responsibility, self-confidence, patience and self-control with addiction in the third session has revealed that students gain new knowledge and skills. Some of the students' comments on the third session are as follows: *''It was a session where we relearned values and saw which values were more effective in addiction. (10, F)".*

According to the themes obtained, 88.2% of the students stated that for the fourth session, it was related to the aims of the program. Similarly, 94.1% stated that the session was fit for purpose and 94.1% stated that the content was satisfactory. ll of the students found this session effective in terms of addressing what they wanted to talk about in the session. In addition, 94.1% of the students stated that this session gave them new knowledge and skills and 64.7% of them actively participated in the session. Finally, the group leader's ability to manage the session was found to be 100%. According to the findings obtained, the most prominent feature of the fourth session was that the things that were wanted to be discussed were discussed in the session. This finding revealed that making sense of emotions, expressing them and restructuring cognitive processes created awareness in students and that what they wanted to talk about was discussed in the session. Some of the students' comments on the fourth session are as follows: *''I noticed the underlying emotions and learned to control and regulate them." (12, F).*

According to the themes obtained, all of the students stated that for the fifth session, it was related to the aims of the program. Similarly,

again, all of the students stated that the session was appropriate for the purpose and the content was satisfactory. All of the students found this session effective in terms of addressing what they wanted to talk about in the session. In addition, 100% of the students stated that this session gave them new knowledge and skills and 92.3% actively participated in the session. Finally, the group leader's ability to manage the session was found to be 100%. According to the findings, the fifth session stood out in terms of almost all of its features and was the most effective session by the students. This finding revealed that the content created for people with negative automatic thoughts to gain coping skills, increase awareness about the essence, gain a positive perspective for the future and motivation for change enabled the session to be effective in many aspects. Some evaluations of the students about the fifth session are as follows: *''It is for me to participate actively while doing it and adapt it to my own life. Very useful. This session finally helped me take small steps for my social media addiction. I even closed my twitter account."(18, F).*

According to the themes obtained, 87.5% of the students stated that it was related to the aims of the program for the sixth session. Similarly, 87.5% stated that the session was fit for purpose and 68.8% stated that the content was satisfactory. 75% of the students found this session effective in terms of addressing what they wanted to be talked about in the session. In addition, 93.8% of the students stated that this session gave them new knowledge and skills, and 68.8% of them actively participated in the session. Finally, the group leader's ability to manage the session was 93.8%. According to the findings, the most prominent feature of the sixth session is that it provides students with new knowledge and skills. This finding revealed that teaching the principles and steps of negotiation and emphasizing the importance of negotiation skills on dependent behaviors provided students with new knowledge and skills. Some of the students 'comments on the sixth session are as follows: ''*In this session we learned how to react in situations of conflict. It has been very beneficial for me."(19,M).*

According to the themes obtained, 93.8% of the students for the seventh session stated that it was related to the aims of the program. In addition, all of the students stated that the session was fit for purpose and 93.8% stated that the content was satisfactory. 93.8% of the students found this session effective in terms of addressing what they wanted to be talked about in the session. In addition, all of the students stated that this session gave them new knowledge and skills and 68.8% of them actively participated in the session. Finally, the group leader's ability to manage the session was 93.8%. According to the findings, the most prominent feature of the seventh session is that it provides students with

new knowledge and skills and the session is suitable for the purposes. This finding revealed that peer mediation practices in addiction provide students with new knowledge and skills and are effective in achieving the goal of the program. Some of the students 'comments on the seventh session are as follows: ''*It was a very useful session, I had the opportunity to negotiation very well. I also saw that looking from outside is easier and healthier.(11,F)"*

According to the themes obtained, all of the students stated that eight session was related to the aims of the program. In addition, 93.3% of the students stated that the session was appropriate for the purpose and all of them stated that the content was satisfactory. 93.3% of the students found this session effective in addressing the things that were wanted to be discussed in the session. In addition, 80% of the students stated that this session gave them new knowledge and skills and again 80% of them actively participated in the session. Finally, the group leader's ability to manage the session was found to be 100%. According to the findings, the most prominent feature of the last session is that it is related to the aims of the program and the content is satisfactory. Some of the students' comments on the last session are as follows:*''It was a process where I became aware in many ways and made me more conscious. It enabled me to learn a lot in a short time, from communication to emotions. (18,F)"*

These findings revealed that the psychoeducation program based on human values, negotiation and peer mediation is effective in gathering new knowledge and skills, enhancing communication skills, coping skills and in combating addiction. Findings regarding the evaluation of the participants' opinions on the activities and methods used in each session are presented in Table 5.

Table 5. Evaluating the participants' views on the activities and methods used in the sessions.

Sessions	Evaluation Scale	Warm-up Exercises		Group Discussion		Worksheet		Role Playing	
		f	%	f	%	f	%	f	%
1 *(n=18)*	4	5	27.7	3	16.6	9	50.0	8	44.4
	5	12	66.6	14	77.7	6	33.3	9	50.0
2 *(n=20)*	4	3	15.0	4	20.0	6	30.0	-	-
	5	15	75.0	13	65.0	9	45.0	18	90.0
3 *(n=19)*	4	7	36.8	6	31.5	8	42.1	7	36.8
	5	10	58.8	10	52.6	9	47.3	10	52.6
4 *(n=17)*	4	5	29.4	4	23.5	3	17.6	2	11.7
	5	10	58.8	11	64.7	12	75.0	12	70.5

5 *(n=13)*	4	2	15.3	4	30.7	4	30.7	2	15.3
	5	11	84.6	9	69.2	8	61.5	11	84.6
6 *(n=16)*	4	4	25.0	2	12.5	3	18.7	4	25.0
	5	10	62.5	12	75.0	10	62.5	11	68.7
7 *(n=16)*	4	3	18.7	3	18.7	5	31.2	2	12.5
	5	9	56.2	10	62.5	9	56.2	11	68.7
8 *(n=15)*	4	3	20.0	1	6.6	3	20.0	4	26.6
	5	11	73.3	12	80.0	11	73.3	9	60.0

As seen in Table 5, the opinions of the students participating in the study on the activities and methods used in each session were evaluated. 84.6% of the students stated that the warm-up exercises for the fifth session were effective. Similarly, 80% stated that the group discussion for the eighth session was effective. 84.6% of the students stated that the worksheet was effective for the forth session. Finally, 84.6% of the students stated that role playing was effective for the fifth session. When the evaluations of the students for all sessions were examined, it was found that worksheet and role playing techniques were very useful in all sessions. In the end of each session the students were asked, "*Is there any activity/discussion or content that you think would be more beneficial if more time is allocated in the session?".* Some of the answer given by the students to this question in the end of the sessions are as follows: *''The program content could be given more space by keeping the time devoted to the introduction activities a little less (15,F)". ''The activity was not done much in this session, we could have activated the activity better within the group (5,F)"*

In the end of the whole process, 10 survey questions directed to students and their responds to were analyzed and the findings obtained are presented in Table 6.

Table 6. Evaluation of student responses to survey questions

Survey Questions	**Student Responds**	***f***	%
1. Did you adapt to the group process?	Yes	14	77.8
	Sometimes	4	22.2
2. Do you believe that the sessions held contributed to the individual?	Yes	18	100
3. Do you think that working in the field of combating addiction has an effect on reducing addiction?	Yes	17	94.4
	Sometimes	1	5.6
4. Do you think the sessions organized have brought you awareness?	Yes	17	94.4
	Sometimes	1	5.6
5. Have you been able to develop alternative ways of increasing communication skills and self-disclosure?	Yes	17	94.4
	Sometimes	1	5.6

6. Do you think you have learned to control and manage emotions, thoughts and behaviors?	Yes	11	61.1
	Sometimes	7	38.9
7. Do you understand the values and values that should be possessed in the process of combating addiction?	Yes	17	94.4
	Sometimes	1	5.6
8. Have you learned the principles and steps of negotiation skills?	Yes	17	94.4
	Sometimes	1	5.6
9. Do you understand how mediation practices can be used to combat addiction?	Yes	17	94.4
	Sometimes	1	5.6
10. Have you had changes in your feelings, thoughts and behaviors related to addiction?	Yes	17	94.4
	Sometimes	1	5.6

As can be seen in Table 6, it was determined that 77.8% of the students were able to adapt to the group. Some of the answers given by the students to the question of adapting to the group process and adapting to the group are as follows: *''I think that meeting activities, listening to each other and keeping their ideas in mind increase group awareness and sincerity."* Then, it was determined that 94.4% of the students believed that working in the field of combating addiction would be effective on reducing addictions. Some of the answers given by the students to the question about the effect of working in the field of combating addiction on reducing addictions are as follows: ''*Raising awareness will enable us to take more correct and manageable steps in both dependencies that may occur in ourselves and in society.*

It was determined that 94.4% of the students thought that the sessions would provide awareness for them. Some of the answers given by the students to the question about gaining awareness about them are as follows: *''I think I have gained awareness in understanding and managing my emotions a lot. I discovered many emotions and thoughts that I am not aware of."* It was determined that 94.4% of the students thought that the sessions held increased their communication skills and developed alternative ways of expressing themselves. Some of the answers given by the students to the question about increasing their communication skills and developing alternative ways of expressing themselves through the sessions are as follows: *''This process allowed me to develop my communication skills in a way. It helped me to develop myself in a subject I needed. This training process was mostly achieved by being able to express myself correctly through communication. Our teachers first laid the foundations with trainings and then I think that everything was built on it. "*

Similarly, it was determined that 61.1% of the students were able to control and manage their emotions, thoughts and behaviors. Some of the answers given by the students to the question of controlling and managing emotions, thoughts and behaviors are as follows: ‘’*Our work on my emotions and underlying emotions has been so fruitful. I have never approached with that point of view. It was very productive."* Then it was determined that 94.4% of the students thought that awareness could be created about the importance of values that should be possessed in the process of combating addiction. Some of the answers given by the students to the question about the importance of values that should be possessed in the process of combating addiction are as follows: ‘’*I think that creating the aforementioned values will distract the addict from this behavior."* It was determined that 94.4% of the students had an idea about the principles and steps of negotiation skills at the end of the sessions. Some of the answers given by the students to the question about having an idea about the principles and steps of negotiation skills are as follows: ‘’*The fact that the negotiation process is given to us practically during the training process has enabled us to better internalize this skill."* It was determined that 94.4% of the students thought that using peer mediation practices in the fight against addiction was/would be effective. Some of the answers given by the students to the question about the effectiveness of using peer mediation practices in combating addiction are as follows: ‘’*If someone has an addict, mediation will be quite enough."* Finally, 94.4% of the students had changes in their feelings, thoughts and behaviors related to addiction at the end of the sessions. Some of the answers given by the students to the question about the changes in their feelings, thoughts and behaviors about addiction are as follows: *"Both my prejudices have decreased and I have noticed that I have recently developed an addiction. In fact, I am trying to fix this situation with what I have learned."* . *‘’There were definitely changes in my feelings, thoughts and behaviors about addiction. "I'm more conscious now."*

4. Discussion and Conclusions

Dependent behavior is the behavior of people who are dependent on a certain type of behavior, a certain action, that is, who want to do it constantly and want to do it more and more. Addiction is when a person is unable to change the negative situations individual experiences, individual is overly attached to an object or action that individual performs in order to escape from real situations (Savcı, 2015) and uses it much more than its purpose (Turkish Language Society, 2019; Kaman, 2019). Addiction is a material or behavioral disorder in which a person tends to meet her needs for pleasure, satisfaction and attachment, as well as her needs for

love, power, fun and belonging (Eryılmaz & Deniz). In Turkey and in the world, tobacco, alcohol and drug intake rates are increasing rapidly, and the age of starting drugs is gradually decreasing. Technology and gaming, shopping addiction, like other addictions, causes psychological, sociological and economic damages to the person, family and society.

As a result of the Covid 19 pandemic process and restrictions, economic problems have occurred all over the world, people's mental health has been threatened (Nicola, Alsafi, Sohrabi, Kerwan, Al-Jabir, Iosifidis, Agha & Agha, 2020). While people with mental health disorders may be affected negatively, it is thought that individuals with mental health may turn to shopping, smoking and internet addiction as well as disorders such as depression and anxiety as a result of changes in living conditions and social relations processes, and the effect of technology on all processes of life (Cullen, Gulati, Kelly, 2020). Individuals sought new ways of coping to get rid of all these negativities, and these attitudes led to the development of various types of addiction (Kazan Kızılkurt & Dilbaz, 2020).

Considering especially from the perspective of university students, it is understood that the university age is a risk group for the onset of addictions or their spread. It is understood that they are a risk group in substance addictions, especially in terms of starting and maintaining cigarette addiction, and behavioral and action addictions, especially in terms of shopping and internet addiction (Eryılmaz & Deniz). All the effects of addiction affect each other in a chain, resulting in different results from person to person in different areas of their lives. For example, in addition to the failures in work, school and social life, it causes unnecessary discussions by disrupting the anger control mechanism in individuals, causing social problems for addicted people, anxiety and sudden outbursts of anger, causing individuals to encounter legal problems.

Mental health care providers have a crucial role in monitoring psychosocial needs and delivering psychosocial support to the public (Pfefferbaum & North, 2020). When the literature is examined, it is understood that the risk factors that cause addictions in the individual are low self-esteem and self-esteem, negative social support networks, impaired interpersonal relationships and even social anxiety. Considering the reasons for the occurrence of addiction, it is seen that the use of mediation and negotiation methods, enhancing values and believes are believed to be beneficial to prevent addiction. The purpose of this study is to develop a psychoeducation programme on enhancing the coping skills of addiction tendency of university students. According to this aim, Coping with Addictions Via Values and Negotiation Psychoeducation Programme (CAVNPP) is established. The content, the process and the effectiveness

of CAVNPP from the phenomenological views and personal gains of university students are examined. The programme has 5 parts, 8 sessions. It is applicable through two months, one session a week, each session lasts at least three hours. As a result, a 24 hour programme established.

We would like to learn "What are the opinions of university students regarding each session of Coping with Addictions Via Values and Negotiation Psychoeducation Program? " as first problem statement. Each session were evaluated through 11 questions given on Table 1. Generally, each session is related to both with the aims of the program and the objectives of the session. The sessions were found to fit for the purposes and approximately 94% of the participants stated that the contents were satisfactory. In addition, approximately 80 % of the students stated that each session gave them new knowledge and skills and 77.7% of them actively participated in the session. Finally, the group leaders' ability to manage the sessions was found to be generally 92 %.

Secondly, we would like to learn about "What are the opinions of university students regarding the activities and methods sustained throughout the sessions of Coping with Addictions Via Values and Negotiation Psychoeducation Program?" to enhance the power of sessions. 84.6% of the students stated that the warm-up exercises for the fifth session were effective. Similarly, 80% stated that the group discussion for the eighth session was effective. 84.6% of the students stated that the worksheet was effective for the forth session. Finally, 84.6% of the students stated that role playing was effective for the fifth session. When the evaluations of the students for all sessions were examined, it was found that worksheet and role playing techniques were very useful in all sessions. Considering the feedback from the participants, each thinks that the more active role they play in the process, the more they benefit from the session. It is understood that if the duration of the warm-up games in each session is kept shorter, more time will be left for the focused study in the session and they can be more effective.

Lastly, we would like to learn about "What are the opinions of university students about the process in general?". It was determined that 61.1% of the students were able to control and manage their emotions, thoughts and behaviors. It was determined that 94.4% of the students thought that awareness could be created about the importance of values that should be possessed in the process of combating addiction. It was determined that 94.4% of the students had an idea about the principles and steps of negotiation skills at the end of the sessions; 94.4% of the students thought that using peer mediation practices in the fight against addiction was/would be effective and 94.4% of the students had changes in their feelings, thoughts and behaviors related to addiction at the end

of the sessions. Considering the feedback from the participants, it was understood how important values are both in relationships and in the formation of conflict, in the addiction process, in turning to addiction and in giving up addiction tendency. It is noteworthy that values are causes of conflict and play a key role in conflict resolution. The resolution of relationships in consensus provides inner peace and brings constructive results in interpersonal relationships. University students understand that values, communication skills and emotions are very important both in their internal dialogues and in their interpersonal dialogues. University students have understood that as a result of their values, communication skills, and emotions, they may be experiencing stress, anxiety, and unhappiness both because of their own negative internal dialogues, because of negative dysfunctional emotions, and because of the negative effects of interpersonal dialogues.

University students have noticed the thought structures, emotional schemes that lead to addiction, and the negative effects of past experiences on today. With the re-framing of feelings and thoughts, effective communication skills and reconciliation skills, they have become able to cope effectively with addictive tendencies. Results of the present study revealed that Coping with Addictions Via Values and Negotiation Psychoeducation Programme (CAVNPP) based on human values is a preventive psychoeducation programme for nonclinical samples and is effective in gathering new knowledge and skills, enhancing communication skills, coping skills and in combating addiction. This study is limited to the fact that it includes the process of structuring the psychoeducation program. The data are limited to obtaining the personal views of the volunteer participants of the program within one nonclinical group. The program was examined based on the evaluations made by a single participant group during and at the end of the process. In order to evaluate the statistical effectiveness of the program, it is recommended to work with the experimental and control groups in the semi-experimental design model. It is considered and suggested that the number of participants should be less than 20, it will be beneficial in terms of supporting active participation of the participants in the sessions and providing personal benefit for each participant.

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Chapter 5

HOW (UN)CRITICALLY ORIENTED IS ENGLISH LANGUAGE TEACHING?: PERSPECTIVES FROM THE TURKISH EFL CONTEXT[1]

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1. Introduction

The number of mother-tongue speakers of English has been surpassed by the number of English-as-an-additional-language (EAL) speakers all around the world (Dewaele, 2018; Hu 2012), which has brought using English for international communication to the forefront. However, there have been different perspectives on the issue of English as an international language since the spread of English has been associated with different processes which could be viewed as naturally occurring or which could be seen as reinforced and perpetuated as result of some political and economic purposes well-planned and enacted.

Kachru (1992) places English language speakers under different categories such as speakers of English as a mother tongue, as a postcolonial language and, as a foreign language in inner, outer, and expanding circles respectively. On the other hand, Phillipson (1992) handles the issue from the view of linguistic imperialism (Canagarajah, 1999; Phillipson, 1992; 2007; 2008; 2009; 2017), according to which the dominance of English language involves a mix of push and pull factors, local and external pressures (Phillipson, 2017: 323). Acknowledging Wierzbicka's (2014) warning for being imprisoned in English as a default language in academia and for being brainwashed by English through the micro level factors such as the semantics and grammar of the English-speaking countries, Phillipson (2017: 328) also alerts English users to the danger of the consolidation of English in covert hegemonic ways at the macro level- historical factors, the forces and myth-making behind the expansion of English worldwide. He asserts that the argument of English as a lingua nullius, which is 'owned' by all who use it at the expense of the dispossession of linguistic capital invested in other languages in linguicist ways, goes hand in hand with the historical record of terra nullius, land supposedly belonging to no-one (*ibid*.: 317). This results in the rationalisation of taking over the inhabitants' worlds of culture and language in line with the rationalisation of occupying territories of other peoples on all continents as a Christian God-given right, which has been deeply rooted in the ideological dichotomy between Us ('civilised') and Them ('barbarians') since the time of the ancient Greeks (*ibid.*).

Holliday (2011) recognises the reductionist dichotomisation of Centre and Periphery inherent in the culturist discourse of the West and the rest and suggests going beyond such false dichotomies and problematising these prevailing discourses through exploring distinct professional and academic communities and personal circumstances in their own rights. He challenges the issue of native speakerism and culturism in language teaching as a prevalent ideology, and a dividing phenomenon within educational practices (Holliday, 2005). The ideology of native speakerism

perpetuates an essentialist 'Othering' perspective which categorises English users according to 'nativeness', which is an elusive and elitist construct reflecting both myth and reality (Davies, 2003; 2006). While it is partly about naïve naturalness resulting from being a speaker of a language by virtue of place or country of birth or adoption, it is also, more importantly, about one's choice of where to go, and of which group and identity to belong to (Davies, 2006: 145). However, as stated in considerable discussion in the literature, native speaker is attributed to someone who is *not* a learner rather than someone who is something positive (ibid.). Therefore, it is suggested to tentatively deal with this ideological term which has ended up with the fallacy or false hypothesis that "the ideal teacher of English is a native speaker" (Phillipson, 1992: 185; Kubota, 2002; 2016). As stated in Kani (2015), the use of terms like bi-/multi-lingual or EAL speakers would serve to a more inclusive and interculturally sensitive platform for the English users who would like to express their identities in their own ways. This has become more prominent in the recently burgeoning debates on World Englishes, and English as an international language.

The present study inquires into the Turkish EFL teacher trainees' and instructors' awareness of and attitudes towards the spread of the English language from a critical theoretical perspective. With an emphasis on the critique of unchallenged assumptions in the mainstream language teaching education, the impacts of the spread of the English language on the Turkish EFL context have been explored by means of both qualitative and quantitative methods. Drawing on five fallacies or tenets, namely, the monolingual, the native speaker, the early start, the maximum exposure and the subtractive fallacies (Phillipson, 1992: 185), the main purpose of this research has been to examine whether such assumptions are evident in the accounts of the Turkish EFL community. It is hoped to open up ways for this community to raise awareness of the sociolinguistic reality of English worldwide and encouraged teachers and teacher educators to guide learners and trainees to reposition themselves according to their own realities in relation to the macro context.

2. Views on the Spread of English

As bilingual speakers of English have increased due to its seeming benefits through 'macroacquisition' rather than speaker migration (Griffler, 2002 cited in McKay, 2003), the pedagogical and cultural assumptions in favour of native or monolingual speakers of English are warranted to change. Put another way, the traditional relationship between culture and the learning of English about the concerns of what Kachru (1985 cited in McKay 2003) terms Inner Circle countries is undermined since English

serves designated purposes in learners' linguistic repertoire of multilingual contexts. Recognised quite early by Smith (1976 cited in McKay, 2003: 3), an international language posits such assumptions:

- Learners of an international language do not need to internalize the cultural norms of native speakers of that language.
- The ownership of an international language becomes "de-nationalized".
- The educational goal of learning an international language is to enable learners to communicate their ideas and culture to others.

These assumptions seem naïve as ELT pedagogy is still heavily loaded with Anglophone elements and products attributed to Inner Circle countries. Also, the asymmetrical power of Centre in terms of language and culture over others needs to be challenged, and well-planned actions are to be taken in language education and teaching to promote learners' communication of their ideas and cultural realities to others.

McKay (2003: 3) also points out that there are several common assumptions of the ELT pedagogy and maintains that the increasing number of bilingual users of English and de-linking of English from Inner Circle countries require a new pedagogy: "1- Interest in learning English is largely the result of linguistic imperialism; 2- ELT research and pedagogy should be informed by native speaker models; 3- The cultural content for ELT should be derived from the cultures of native English speakers; 4- The culture of learning that informs communicative language teaching (CLT) provides the most productive method for ELT". Though the last statements could be formidable, the first one is debatable, as linguistic imperialism is still on our ways and has not vanished as can be understood by Phillipson's (1992; 2007; 2008; 2009; 2017) projection of the spread of English as a post-colonial endeavour of core English-speaking countries to maintain dominance over periphery (in many cases developing) countries. In his words, "the dominance of English is asserted and maintained by the establishment and continuous reconstitution of structural and cultural inequalities between English and other languages" (Phillipson, 1992: 47). Though McKay (2003) sees this term as oversimplifying the complexity of the spread of English, quoting from "The Alchemy of English" by Kachru (1986 cited in McKay, 2003), she acknowledges that "English learning is being fuelled by a belief in the power of English". She thinks if people want access to scientific and technological information, international organisations, global economic trade, and higher education, they have to gain the linguistic power of English. She reckons no harm in many Singaporeans' viewing English as a key to economic survival and valuing the material and other rewards that English can bring at the

expense of Asian identity and values, for example. However, the fact that developments in such fields depend on the monopoly of English brings about uncontrolled power and, consequently, the marginalisation of the other.

Modiano (2001: 159; 2009) also draws attention to the fact that language and ideology are intimately connected while supporting Phillipson (1992), Pennycook (1994; 1998), and others when they insist that "parallels be drawn between the marketing of English as an export product, linguistic imperialism, and the ontological impact which foreign language learning has on the learner". Tollefson (1995: 2) refers to "ideological power", as "the ability to project one's own practices and beliefs as universal and common-sense". Therefore, a critical ELT through which the consequences of linguistic and cultural acts are considered through postcolonial theoretical framework should be supported to give way to the universal values in harmony with the spirit of international movement where the concepts such as equality, human rights, fair play become prominent (Modiano, 2001: 169).

3. The Status of English and ELT in Turkey

English as an international language is not nativised or institutionalised but function as a performance variety in the EFL context of Turkey as an expanding circle country (Kachru, 1992). English mainly functions in education and private sectors like international business and tourism, which highlights instrumental and international reasons of education and better career opportunities (Sebüktekin, 1981 cited in Doğançay-Aktuna, 1998). In range and depth, the access to better quality English instruction is open to higher socioeconomic strata of society. Though in formal schooling in Turkey, English is either compulsory or the most preferred foreign language, the amount of time allocated to it in the curriculum, the quality and range of materials and qualifications of teachers differ across types of schools; therefore, ELT is not distributed equally across the country, which perpetuates further the division between the upper and lower strata of the society. (For a detailed sociolinguistic analysis of the place of English in Turkey, see Büyükkantarcıoğlu, 2004).

In the Turkish context, both language education and the lives of people have been affected by the spread of English as a result of the dynamics of social, economic and cultural structures shifting through globalisation and the Empire (Kumaravadivelu, 2006). Despite the emphasis on context-sensitive post-method pedagogy (*ibid.*), there is still an appraisal of methods including communicative language teaching in Turkish foreign language teaching context no matter how much some teachers express their unwillingness to observe these methodological

concerns due to contextual constraints. From a postcolonial perspective, the spread of English and the imported "given" language teaching methods in mainstream education is arising out of the dangerous liaison between different waves of globalization, 'Empire' as the postmodern version of historically imperial powers and TESOL (ibid.). While English is regarded as indispensible, beneficial and natural by the EFL professionals let alone laypeople in Turkey, this seeming view of neutrality signals a deeply injected agenda that can be approached sensitively only from the window of Critical Applied Linguistics (CALx) (Pennycook, 2001; 2008; 2010).

There are historical and sociolinguistic studies on the place of English and ELT in Turkey (Kırkgöz, 2005, 2007, 2008; Doğançay-Aktuna & Kızıltepe, 2005; Alptekin & Tatar, 2011; T. Arık & Arık, 2014; T. Arık, 2020) and more critical studies about the spread of English in Turkey (Ateş-Özdemir, 2006; Işık, 2008; Selvi, 2011). Also, there are interpretive research studies on the attitudes of private primary school students towards the English language and its use (Karahan, 2007) and on the perceptions of teacher trainees about some aspects of English as an international language (EIL) (Altay, 2010). However, there is a shortage of critical studies conducted in terms of the stakeholders' (trainees, teachers or students) perspectives about the spread of English that should be challenged critically from a linguistic imperialism approach under linguicism (Phillipson, 1992), which has brought out the need for the present study.

In parallel to the prevalence of English around the world, it has become essential to critically explore English language trainees' and instructors' awareness and sensitivity with regards to their role in adjusting their teaching in a way to consider the current status of English and English language teaching (ELT) in the Turkish EFL context. In this respect, finding out their views on the ownership of English and awareness of the linguistic imperialism, the ideological and prescriptivist positioning and sociocultural hegemony of British/American English (Addison, 2011; Canagarajah, 1999; 2014; Coluzzi, 2012; Ismail, 2012; Jakubiak, 2012; Lee, 2010; Matsuda & Freidrich, 2011; Matsuda, 2019; McKay, 2018; Modiano, 2009; Pennycook, 1994; 1998; Phillipson, 1992; Shin, Eslami and Chen, 2011; Tollefson, 1995; Yuen, 2011), I problematise their look at predominant views and the one-size-fits-all approaches to the spread of English and ELT, rationales that English and ELT is putting forward to establish legitimacy and lastly contextual and critical views on English and ELT. I will also address any significant relationships between trainees' background information such as 'gender, grade, knowledge of any foreign language other than English and experience of communicating with foreigners in English and being abroad' and their critical or uncritical views on English and ELT.

In this sense, I challenge their views as the reflection of mainstream education from the window of Critical Applied Linguistics (CALx) (Pennycook, 2001; 2008; 2010) underpinned by the critical theoretical paradigm. A critical stance to the questions of who we are and what we know reveals that beyond the positivist- technical and interpretive-practical realities which may be limited if accounted by on their own there stand out power and ideology structures affecting these realities. Therefore, what takes place at the heart of CALx is social inquiry that problematises the givens in relation to the micro and macro structures through constant self-reflexivity to enrich the possible alternatives as preferred futures (Pennycook, 2001). Hence, I aim to raise the awareness of would-be teachers/professionals and instructors and possibly change their views on taken-for-granted structures in ELT in the future by facing them with the hidden ideologies and realities that will affect the future generation's identity and self-esteem. The following research questions were sought to address the taken-for-granted critical issues related to the status of English and ELT from the perspectives of EFL trainees and instructors at a western state university in Turkey:

1. What are the positions of EFL trainees and instructors regarding mainstream assumptions about English and English language teaching?

2. What are the positions of EFL trainees and instructors regarding critical approaches to English and English language teaching?

3. Are there any relationships between trainees' perceptions and factors such as grade, gender, knowledge of any foreign language other than English and experience of communicating with foreigners in English and being abroad?

4. Methodology

In this mixed-methods case study (Dörnyei, 2007; Borg, 2009), both qualitative and quantitative approaches were combined to explore participants' perspectives on the mainstream and critical views about English language use(s) and teaching. Hence, a questionnaire piloted and semi-structured interviews member-checked and translated into Turkish for both trainees and instructors and focus group discussions with first- and fourth-year trainees were implemented.

4.1 Participants

142 Turkish EFL teacher trainees (freshmen to seniors: 1st-year: 31; 2nd-year: 44; 3rd-year: 42; 4th-year: 25) and 5 instructors at the ELT department of a western state university participated in the study according to the random sampling.

When the age of the participants is considered, the range of age was between 18 and 28+, with a dominance of the range from 21 to 23. To summarise, most of the trainees were female (N: 104), while a quarter of them were male (N: 38). Most of them (% 62) studied English for 10 to 12 years; % 52 of them knew one foreign language other than English, whereas % 37 of them knew no other languages; % 83 of them haven't been abroad; lastly % 84 of them have communicated with foreigners in English for 'a few times' or 'sometimes'.

When it comes to five instructors (Female; 2, Male: 3) that took part in the study, their years of experience of teaching were between 10 and 15 except one who has just begun teaching at the university. All except for one of them who is working at a state high school have been teaching at the trainees' university. Pseudonyms were used throughout the paper to provide anonymity and confidentiality.

4.2 Data Collection

The participants' views about five fallacies or tenets, namely, the monolingual, the native speaker, the early start, the maximum exposure and the subtractive fallacies, which restrict the use of non-Anglophone elements (Phillipson, 1992: 185) have been explored through a questionnaire, and semi-structured interviews with both trainees and instructors and via focus group discussions with first- and fourth-year trainees.

I prepared a questionnaire appealing to each category or tenet and made a pilot application (with 10 trainees and 1 instructor) to see if there is a need to change, omit or replace any items after getting the feedback as the expert opinion of another TESOLer academic about it. Then, I further explained in detail the terms in the literature review such as World Englishes, and technological standardisation and changed two items so that each can represent only one statement at a time. Also, the reliability coefficient value of the questionnaire (α=.77) has shown that the questionnaire has an acceptable level of reliability. Interview questions complemented the questionnaire while enriching the findings and ensuring the validity, trustworthiness, and credibility of the data (Guba and Lincoln, 1994; Cohen et al., 2007). The length of an interview ranged from 20 to 30 minutes. As for ethical considerations, I got the necessary written and verbal consents from the participants after explaining the purpose of the study and assuring them of confidentiality and the right to withdrawal from the study at any time while recording the interviews and group discussions or during the application of the survey.

4.3 Data Analysis

The questionnaire data were analysed through the SPSS, while the qualitative data were coded and recoded according to thematic analysis. According to the literature review, four categories were preconceived to problematise their views:

1. Predominant views about the spread of English and ELT;

2. One-size-fits-all approaches to the spread of English and ELT;

3. Rationales/Tenets that English and ELT is putting forward to establish legitimacy;

4. Contextual and critical views on English and ELT.

Considering the literature review, I will present them in three headings by combining the questionnaire items with the related quotes from the interviews and discussions in the next section.

5. Quantitative and Qualitative Results

In the light of the general means of four categories (Table 1), it can be deduced that trainees and instructors had common or similar points for each item except that instructors showed more resistance to the items about one-size-fits-all approaches than trainees.

Table 1. Descriptive Statistics for Participants' Perceptions about Four Categories

Four Categories	TR/INS	Mean	S.D.	Frequencies (Valid Percent) %						Total N
				SD	**D**	**PA**	**A**	**SA**	**NK**	
1.Predominant views about English and ELT	Tr	4.17	0.59	1.05	3.35	15.8	**40.6**	**34.8**	4.2	142
	Ins	4.12	.14	0	12.5	25	12.5	***37.5***	12.5	4
2.One-size-fits-all approaches to them	Tr	3.39	0.51	9.31	17.6	**24.5**	**26.7**	16.6	5.1	142
	Ins	**2.50**	0.53	***37.5***	15.6	18.7	15.6	12.5	0	4
3.Tenets/Fallacies	Tr	3.60	0.51	5.97	14.8	22.0	**30.2**	23.1	3.68	142
	Ins	3.09	0.73	18.7	***25***	17.5	*21.8*	*21.8*	3.1	4
4.Critical and contextual views	Tr	3.54	0.53	3.7	18.8	**26.4**	**28.2**	15.2	7.4	142
	Ins	3.50	0.29	15	10	22.5	15	***37.5***	0	4

Note.TR: Trainees' views; INS: Instructors' views; S.D.: Standard Deviation; N: Number.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Partially Agree (PA), 4: Agree (A), 5: Strongly Agree (SA) and 6: Do not know (NK).

According to the likert scale from 1 to 6 referring to the degrees of agreement (1: Strongly Disagree (SD), 2: Disagree (D), 3: Partially Agree (PA), 4: Agree (A), 5: Strongly Agree (SA) and 6: Do not know (NK)), instructors disagreed on those top-down and generalising one-size-fits-all statements, whereas trainees partially agreed on them. However, for the other categories, they were both in support of predominant views and tenets as well as critical points either partially or neutrally.

Through the following subheadings, I will provide a detailed outlook on each item under related categories while supporting my claims on the conclusions of the study with some quotes from the participants' own words in the interviews and discussions.

5.1 ELT Trainees' and Instructors' Views about Mainstream Assumptions in the ELT Context

This section deals with the first two categories in detail to clarify the participants' views on predominant and one-size-fits-all ideas on English and ELT (Table 2 and 3).

Table 2. Results for Items about Predominant Ideas on English and ELT

Predominant ideas on	**Survey Item**	TR/INS	Mean	S.D.	Frequencies (Valid Percent) %						Total N
					SD	**D**	**PA**	**A**	**SA**	**NK**	
English	3. The spread of English is beneficial.	Tr	4.19	1.01	2.8	2.8	14.1	**36.6**	**40.1**	3.5	142
		Ins	**3.75**	0.95	0	0	**50**	25	25	0	4
	29. The spread of English is natural.	Tr	4.21	0.71	0	0.7	13.4	**50.7**	**33.8**	1.4	142
		Ins	5.25	0.50	0	0	0	0	**75**	25	4
ELT	25. English language teaching is objective and neutral.	Tr	**3.88**	1.12	0.7	8.5	**28.9**	**36.6**	14.8	10.6	142
		Ins	**3.50**	1.73	0	25	**50**	0	0	25	4
	26. Communicative Language Teaching (CLT) is a useful method in ELT.	Tr	4.41	0.76	0.7	1.4	7.0	**38.7**	**50.7**	1.4	142
		Ins	4.00	1.41	0	25	0	25	**50**	0	4
Overall Mean		Tr	4.17	0.59	1.05	3.35	15.8	**40.6**	**34.8**	4.2	142
		Ins	4.12	.14	0	12.5	25	12.5	***37.5***	12.5	4

Note.TR: Trainees' views; INS: Instructors' views; S.D.: Standard Deviation; N: Number.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Partially Agree (PA), 4: Agree (A), 5: Strongly Agree (SA) and 6: Do not know (NK).

Table 3. Results for Items about One-Size-Fits-All Ideas on English and ELT

One-size-fits-all ideas on	**Survey Item**	TR/INS	Mean	S.D.	Frequencies (Valid Percent) %						Total N
					SD	**D**	**PA**	**A**	**SA**	**NK**	
English	13. A single language, English, is perfectly satisfactory for all international contexts.	Tr	3.03	1.21	7.0	**28.9**	**34.5**	17.6	7.0	4.9	142
		Ins	**2.50**	1.73	25	**50**	0	0	25	0	4
	16. Native speakers of English do not need to learn any other language.	Tr	**1.56**	0.73	**52.8**	**42.3**	2.1	1.4	1.4	0	142
		Ins	**1.00**	0	**100**	0	0	0	0	0	4
	21. People with different English accents have problems to understand each other.	Tr	3.43	1.04	3.5	10.6	**42.3**	28.9	12.0	2.8	142
		Ins	3.00	0.81	0	25	**50**	25	0	0	4
	30. English proficiency is a precondition for doing better jobs.	Tr	4.23	0.86	0.7	2.1	16.2	**35.9**	**43.7**	1.4	142
		Ins	3.50	1.29	0	25	25	25	25	0	4
ELT	17. British or American English should be the standard English.	Tr	3.30	1.18	3.5	23.2	**32.4**	**26.8**	8.5	5.6	142
		Ins	**2.00**	2	**75**	0	0	0	**25**	0	4
	19. "Native speaker" norm of English is superior to World Englishes.	Tr	3.78	1.24	2.1	14.8	21.8	**35.9**	14.1	11.3	142
		Ins	**2.75**	2.06	**50**	0	0	25	25	0	4
	20. English as a medium of instruction in engineering, science etc. is necessary.	Tr	3.46	1.25	4.9	16.2	**32.4**	**28.9**	9.2	8.5	142
		Ins	**2.00**	1.15	**50**	0	**50**	0	0	0	4
	28. CLT is universally beneficial for EFL contexts.	Tr	4.29	0.89	0	2.8	14.8	**38.7**	**37.3**	6.3	142
		Ins	3.25	0.95	0	25	25	**50**	0	0	4
Overall Mean		Tr	3.39	0.51	9.31	17.6	**24.5**	**26.7**	16.6	5.1	142
		Ins	**2.50**	0.53	***37.5***	15.6	18.7	15.6	12.5	0	4

Note.TR: Trainees' views; INS: Instructors' views; S.D.: Standard Deviation; N: Number.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Partially Agree (PA), 4: Agree (A), 5: Strongly Agree (SA) and 6: Do not know (NK).

The Spread of English: Beneficial, Natural and Neutral?

Both trainees and instructors agreed on the predominant ideas (Tr. M: 4.17; Ins. M: 4.12) that the spread of English is beneficial and natural and

strongly agreed that CLT is a useful method. Instructors were partially critical about the neutrality of ELT and the necessity of English for doing good jobs in the survey, while trainees were in favour of the neutrality of English and ELT and did not have much concern about the hidden agenda behind the scenes according to the survey results. However, in the interviews, trainees expressed elevated feelings and views in terms of intercultural communication in addition to extrinsically rewarding motives, as to the reason why they saw English as beneficial, as Nesrin stated: "It is an extraordinarily fantastic reason to familiarise with various cultures and languages to be a world citizen, expand your horizons and express yourself internationally by adopting the approach in Turkish proverb: *"Bir dil bir insan, iki dil iki insan*." (Turkish): *One who speaks only one language is one person, but one who speaks two languages is two people".* In this respect, they positioned English as an additional language worthwhile as they considered English-as-a-first-language speakers need to learn any other language (item 16). On the other hand, the percentages and means of those who think that English proficiency is a precondition for doing better jobs (item 30: Tr. M: 4.23; Ins. M: 3.50) indicated that according to the majority of the participants, other interests take place among the reasons for learning English, as explicated in the next subsection.

The Status of English in Turkish Society and EFL Context

What triggers language learning in Turkey is related to the extrinsic motivation such as gaining a good social status or a better career as one of the trainees, Fatih, revealed:

> No use in learning an African tribal language, but today wherever we go to or look at, we see English, so it has been an obligation or a necessity; after some time it *gets naturalised* to learn it. If it were French that prevails as it was in the past, we would be studying at the department of French language teaching. The global power of English puts pressure on us to learn it to get a good job.

These comments also hint the idea that the 'beneficial' and 'natural' spread of English results from the asymmetric power relations between English and the other languages and from the strategies of linguistic imperialism as Berk explicated: "To learn English may not be a must for everyone, say it, for a civil servant; it is still a "should" though. However, in academia, it is a must. It is everywhere on the Internet or international settings. Why English but not Russian, French, Turkish or any other one? Because Big Brother and Younger Brother, the UK and the US make English indispensible." Those who learn it better get the economic power of the society and perpetuates the consumerist circle of these *brother*

countries because concerning its equal distribution among society, we see a contradiction among types of schools in terms of the quality and the time of exposure to ELT as one of the fourth-year trainees, Aslı, stated:

> In colleges (the name of private high and middle schools in Turkey), they teach English for 12 hours a week – 4 hours of which is practice- while in state schools the duration of regular foreign language courses is only four hours in total. I cannot imagine the situation of private foreigner schools in this case.

Doğançay-Aktuna (1998: 37) also supports that there is a great demand for English that cannot be satisfied equally well across the nation since the quality and standard of language teaching vary among different schools as the trainee, Aslı observed; as a result, English has become yet another tool for this already powerful group who has education in private schools with better quality, and the gap between the upper and lower economic strata of society has grown.

The Owner of English- Standard English or World Englishes?

Along with the social and economic inequality English has caused, the influence of top-down unidirectional tenets of ELT was apparent in the views of the trainees who (M: 3.39) supported the 'native speaker' norm of English (British or American) to be the standard English, superior to World Englishes, whereas instructors almost disagreed on the item (13) that English is perfectly satisfactory for all international contexts (M: 2.50) and on the aforementioned items- 17, 19 and 20 (Means: 2.00, 2.75, 2.00) except for one of the instructors, Sarp:

> The owner of English is American and British people because the standards of native speakers will be always on the top. If in time there are some changes, these changes will be made by native speakers. It is hard for so many non-native speakers who do not have in common to come together and create a collective power, so we will follow what they changed as non-native speakers.

Sarp's comments can be taken as the general outlook of the trainees as well; however, other instructors expressed their reaction to this view, and Berk was a good representative of those instructors: "Everybody who speaks English all over the world is the owner of English. It is not only about English; if you speak any one of languages, you become the owner of that language as you add your comment to it, so the whole world is its owner." *Four* instructors and those among *only 20%* of trainees (e.g., item 20 about the necessity of the EMI: 4.9 plus 16.2 % of trainees) strongly disagreed on these one-size-fits-all items about the beliefs prioritising the ownership of the Inner Circle, native speaker norms and usages. These

results pinpoint that the customers and would-be promoters (trainees) of the English industry (Mahboob, 2011) are under the influence of the ideology beneath the eye-catching 'beneficial and neutral" English. This ideology has for long promoted anglocentricity, which is defined in the early forms and functions that would lead to a strengthening of linguistic imperialism (Phillipson, 1992: 178).

Common Assumptions on ELT

Both groups supported the item that CLT is *universally* beneficial for EFL contexts though both sides agreed that language teachers have difficulty in using CLT in Turkey in the survey results (items 26, 27, 28; Tr. M: over 4.00; Ins. M: over 3.25). In the interviews, they also accepted the difficulty in applying this method in Turkey as Sevda drew the reality picture of schools:

> Let alone CLT, even GTM (Grammar-Translation Method) is not in use. As the same structures are repeated year after year in vain, students get fed up with English, not being able to communicate, and give up their interest in and hope of learning it.

The reality reflected a mismatch between the school teachers' practical views and top-down methods (like CLT) asked to be implemented to teachers by the MoNE. There was also a dilemma between the suggested effective methods and the assessment criteria at schools together with real teaching practices as another trainee Yelda posited:

> There is a common assumption that if students learn grammar, it is sufficient. They do not care if they speak or not as pencil-and-paper-based exams are tools for evaluation. However, if you aim at communicative competence, why don't you teach them for communication? They may get the highest mark '100' in the quizzes, but if they cannot say a few words, how can we suppose them to be successful? This is the reality, but who cares?

These extracts displayed how strong adherence trainees showed to the CLT method though they know its inapplicability permeates the language classes. However, the dominance of CLT is argued to lead to the neglect of one crucial aspect of language pedagogy, namely the context in which that pedagogy takes place; owing to its serious consequences, there is a need to demote CLT as our main paradigm and to adopt a contextual perspective (Bax, 2003: 278).

5.2 The Influence of the Current Fallacies and Critical Ideas on Their Perceptions

The dominant discourse of global English that Phillipson (1992) proposed as tenets or fallacies had influenced participants to the extent

that they partially supported them, while they both disagreed on the unconditional acceptance of 'native speakers' as the ideal teacher of English (Trainees' Mean: 2.69; Instructors' Mean: 1.50). Both stakeholders (Tr. M: 1.56; Ins. M: 1.00) strongly disagreed that 'native speakers' of English do not need to learn any other language and do not regard English satisfactory for all international contexts and they (29.6% of trainees; 50% of instructors) stated if other languages are used much, standards will not drop as a critical point. With regards to the instructors, the fallacies they agreed partially were the necessity of English for global communication and its easiness to learn. While their opinions on English as the language of science and technology ranged between "strongly disagree" and "strongly agree", they showed common resistance to its being a necessity for advancement and modernity (Mean: 2.00) and partial (50-50) support and resistance to the monolingual environment and the ever-using of L2 for teaching. Three out of four instructors asserted that critical literacy competence is almost not emphasised in ELT, which was justified by the answers of trainees who were obviously not critically aware of the fallacies about the mentioned items as they strongly agreed or supported the mentioned items to which instructors resist. Trainees' answer to the question about the words associated with English (Table 4) also revealed that "modernism (50%), development (62.5%) and beneficial (81.7%)" words were the highest-rated ones along with "diversity (51.4%) and 'the sooner, the better' (68.3%)", while monopolisation (10.6%) and imperialism (28.2%) were among the least associated words.

Table 4. Words Associated with English by Trainees

Words	Frequency	%
Development	94	66.2
Beneficial	116	81.7
Modernism	71	50
Democracy	4	2.8
Diversity	73	51.4
Imperialism	40	28.2
Monopolisation	15	10.6
The sooner, the better	97	68.3

This picture was also evident in the survey items in which trainees favoured the monolingual, the native speaker, the early start, the maximum exposure and the subtractive fallacies (Table 5). Instructors generally opted for "beneficial", "diversity" and "imperialism", adding "lingua franca or interlanguage" and "necessary but hard to teach".

Table 5. Results for Items about Fallacies or Tenets on English and ELT

Fallacies or Tenets on	**Survey Item**	TR/INS	Mean	S.D.	Frequencies (Valid Percent) %						Total N
					SD	D	PA	A	SA	NK	
English	6. English is necessary for global communication.	Tr	4.31	0.80	0	2.8	12.0	**36.6**	**47.9**	0.7	142
		Ins	4.50	1.00	0	0	25	0	**75**	0	4
	8. English is necessary for advancement and modernity.	Tr	3.77	1.07	3.5	7.7	23.9	**40.1**	21.8	2.8	142
		Ins	**2.00**	0.81	25	**50**	25	0	0	0	4
	9. English is the language of the science and technology.	Tr	3.78	1.10	4.2	9.9	18.3	**39.4**	27.5	0.7	142
		Ins	3.25	1.70	25	0	25	25	25	0	4
	10. English is easy to learn.	Tr	3.58	0.99	2.8	8.5	**34.5**	**37.3**	15.5	1.4	142
		Ins	4.00	0.81	25	0	**50**	0	25	0	4
ELT	1. English is best taught monolingually.	Tr	3.84	1.12	2.8	10.6	22.5	28.2	**35.2**	0.7	142
		Ins	3.25	1.50	0	**50**	0	25	25	0	4
	2. The mother language (L1) should not be used in the classroom.	Tr	3.55	1.16	6.3	12.0	24.6	**34.5**	21.8	0.7	142
		Ins	3.00	1.15	0	**50**	0	25	25	0	4
	11. If other languages are used much, standards will drop.	Tr	3.31	1.70	11.3	**29.6**	22.5	12.0	2.1	22.5	142
		Ins	3.25	1.89	0	**50**	25	0	0	25	4
	12. The ideal teacher of English is a native speaker.	Tr	**2.69**	1.28	16.9	**37.3**	18.3	14.1	13.4	0	142
		Ins	**1.50**	1.00	**75**	0	25	0	0	0	4
Overall Mean		Tr	3.60	0.51	5.97	14.8	22.0	**30.2**	23.1	3.68	142
		Ins	3.09	0.73	18.7	***25***	17.5	21.8	21.8	3.1	4

Note.TR: Trainees' views; INS: Instructors' views; S.D.: Standard Deviation; N: Number.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Partially Agree (PA), 4: Agree (A), 5: Strongly Agree (SA) and 6: Do not know (NK).

When it comes to the items about criticality and contextual differences on language learning in the questionnaire (Table 6), both groups thought that the spread of English is not a threat to other languages (Means for instructors and trainees: 1.75; 2.71) though they were aware that this would perpetuate the dependency on powerful countries that spread English through international business and technology (Means: 5.00; 3.90).

Table 6. Results for Items about Critical and Contextual Views on English and ELT

Critical and Contextual Views on	**Survey Item**	TR/INS	Mean	S.D.	Frequencies (Valid Percent) %						Total N
					SD	D	PA	A	SA	NK	
English	4. The spread of English is a threat to other languages.	Tr	**2.71**	1.37	12.7	**46.5**	17.6	9.2	7.7	6.3	142
		Ins	**1.75**	0.95	**50**	25	25	0	0	0	4
	5. The dominance of English is an impediment to the use of other languages.	Tr	**2.58**	1.18	12.7	**45.1**	25.4	9.2	3.5	4.2	142
		Ins	**1.75**	0.95	**50**	25	25	0	0	0	4
	7. English is a language spread by powerful countries.	Tr	**3.90**	1.11	1.4	9.2	25.4	**32.4**	25.4	6.3	142
		Ins	**5.00**	0	0	0	0	0	**100**	0	4
	14. International business and technological standardisation make English spread.	Tr	**4.11**	0.83	0	3.5	16.2	**48.6**	28.9	2.8	142
		Ins	**4.75**	0.50	0	0	0	25	**75**	0	4
	15. English increases dependency on global powers.	Tr	**3.79**	0.97	0.7	6.3	31.7	**40.1**	16.2	4.9	142
		Ins	**3.75**	0.95	0	0	**50**	25	25	0	4
ELT	18. The use of local models of English (Indian, Nigerian, and Malaysian) should be a part of ELT.	Tr	3.11	1.49	7.7	**35.9**	25.4	12.7	4.2	14.1	142
		Ins	3.25	2.06	25	25	0	0	**50**	0	4
	22. Knowledge of cultures is more important than linguistic factors.	Tr	3.66	0.97	0	11.3	**32.4**	**37.3**	16.2	2.8	142
		Ins	4.50	1	0	0	25	0	**75**	0	4
	23. Critical literacy competence is emphasized in ELT.	Tr	3.92	1.37	1.4	11.3	**33.1**	23.2	9.2	21.8	142
		Ins	**2.75**	1.70	25	25	25	0	25	0	4
	24. Knowledge of varieties of English is more important than linguistic factors.	Tr	3.42	1.04	0	18.3	**40.1**	26.1	11.3	4.2	142
		Ins	3.50	0.57	0	0	**50**	**50**	0	0	4
	27. Language teachers have difficulty in using CLT in Turkey.	Tr	4.22	0.91	0.7	1.4	16.9	**43.7**	30.3	7.0	142
		Ins	4.00	0.81	0	0	25	**50**	25	0	4
Overall Mean		Tr	3.54	0.53	3.7	18.8	**26.4**	**28.2**	15.2	7.4	142
		Ins	3.50	0.29	15	10	22.5	15	***37.5***	0	4

Note.TR: Trainees' views; INS: Instructors' views; S.D.: Standard Deviation; N: Number.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Partially Agree (PA), 4: Agree (A), 5: Strongly Agree (SA) and 6: Do not know (NK).

Different accents, cultural backgrounds and local models of English were regarded as important, and the challenges to effectuate the CLT method in Turkey were admitted; neverhteless, they were not at a point of critical judgement yet as instructors righteously expressed that there is a lack of critical literacy competence in our education.

English: A Threat or Not?

There was a general tendency to accept givens without questioning as for the percentages. The ones who agreed on the critical points such as items 4, 5, 25 about seeing English as a threat to other languages (16,9 %) or its spread as value-laden or unneutral (9,2 %) constituted only about *ten percent* of all trainees. Among 5 instructors, 2 of them were concerned about the spread of English, and only one considered it as a threat. Berk put forward the general tendency of opinions: "Societies that have sovereignty over others in terms of technology are not naive or neutral while spreading English, but the status of English is not in a position to degenerate the Turkish culture." Whereas both groups were aware that English is a language spread by powerful countries through international business and technological standardisation, neither of the groups considered the spread of English as a threat or impediment to other languages (Tr. M: 2.71; Ins. M: 1.75). However, the opposite view was not also behind the scenes as Melisa said in the interviews: *"Every culture or every person is unique and valuable. Other languages like Japanese, Indian, Arabic, Persian and Chinese should be integrated to the educational policies. The self-sacrifice of Turkish and other languages and the only-English policy should be refused; or else we are not named as Turks anymore." She showed sensitivity to identity issues, being aware of the relation of identity to languages and her language as one of the trainees looking from a critical perspective. According to Phillipson (1997), linguicism starts just in processes of resource allocation, of the vindification and vilification in discourse of one language rather than another between the speakers of different languages. Most trainees' view of English as 'the language of modernity and advancement' was a sound example to this privileged position of English as a 'standard'. Their perceptions reflected the dominant attitudes, values and hegemonic beliefs about the purposes English should serve and certain pedagogic practices in the ELT. Such linguicism may be actualized through conscious or unconscious and overt and covert intentions.*

Underlying Ideologies, Interests and the Expansion of English

The colonial-period setting the tone for 'educational aid' launched linguistic hierarchies and linguicist belief that only-English policy can

bring developing economies and minds (Phillipson, 1992). In the post-imperial English age, the grand principles Britain promoted as -- peace, democracy, human rights and economic development in the Third World -- continued to prevail in some uncritical minds and in the media. However, as Curtis (1995: 1 in Phillipson, 1997) documented, the mass poverty and destitution have been the direct products of the structure of the international system, and the world's powerful states have knowingly promoted poverty in the Third World through 'free trade and liberalisation' policies. The influence of economic power on the spread of English is prominent in the words of a first-year English language teacher trainee, Levent:

> English is the common language of the world as the American dollar is more than the official currency of the US. If the language of the US were not English but another language, then English would be suppressed under it. The borders of the countries have disappeared in this era, and the spread of English makes changes beyond what military forces could do in the past..."

He put it bluntly that things may not be the way they seem. The underlying hidden structures became visible in his views which were critical of the assumptions of the mainstream education. Another trainee, Feyza, also drew attention to its effect on future generation's identity and self-esteem and how her students objected to learning English by saying 'Why do I have to learn English? I know Turkish, so why don't they learn my language, Turkish?' and added:

> This is certainly a question of ideology. For example, in course books, I remember texts about the great benevolence from the US to the colonised Black countries. If those issues are not questioned and if we continue trying to grab or borrow from English language and culture, the cultural imperialism will make us Anglicised and we will no longer be like a Turk or an English, and a weird generation will come up.

This otherisation to one's own culture and language along with the economic power of global flows is perpetuated by most applied linguistics acting in harmony with the dominant neutral 'aid' paradigm. An instructor at a state school, Elif expressed her awareness of the issues: "*We are a part of the play in which we are dependent upon them. Neither the level of humanity nor the intellectual and cultural levels go better. The new generation sees and learns about powerful countries from the point they want themselves to be seen and perceives living in those countries as freedom."* From the trainee Ceren's perspective, ideological views and interests were illustrated:

> As a learner of English during school years, American English has been imposed as an idol. Importing the commodities from the US., we also import English on products. English names of cafés are thought to increase their

prestige. For example, on the street, we can see 'Pet City', 'Carnavales' shops etc. or we use 'empoze' to mean 'imposed', 'kombinlemek' and 'refuze etmek' by borrowing 'to combine, to refuse' from English as a sign of the desire to imitate English or American people.

Linguistic borrowing is one symptom of the spread of English in the global linguistic marketplace. Actually, speakers of a language have no intention of returning anything, which proves terms 'borrowing and loan word' are misleading (Calvet, 1987: 235 in Phillipson, 1992: 7). Therefore, there is a unidirectional transaction reflecting the desirability of the product to the consumer, thereby a recurring need to control, regulate or tame that spread (Fishman, 1992: 20 in Doğançay- Aktuna, 1998: 25). Some statistical data about the use of English in marketing and the media industry show that 49 percent of the business names in Ankara, the capital city of Turkey (Selvi, 2016) and that over 40 per cent of the movies shown in İstanbul in 2014 were American productions (Arık & Arık, 2019).

5.3 Relationships between Trainees' Perceptions and Their Background Information

When all the factors such as "grade, gender, knowledge of any foreign language other than English and experience of communicating with foreigners in English and being abroad" were considered (Table 7, 8, 9), significant differences found were between gender and trainees' views on predominant ideas and fallacies or tenets ($p = .039 < .05$ in Table 7). Though the mean scores of both males and females were similar, females were found to have stronger beliefs in those items; however, the supremacy of the number of females over males may be another reason for why females seemed like that.

Table 7. Independent Samples T-test Results for the Gender Variable Regarding the Trainees' Views on Predominant Ideas and Fallacies/Tenets

	Gender	**N**	**Mean**	**Std. Deviation**	**df**	**t**	**Sig. (p)**
Predominant ideas	Female	104	4.23	.55	**140**	**2.080**	**.039***
	Male	38	4.00	.67			
Views on Fallacies	Female	104	3.66	.45	**140**	**2.001**	**.047***
	Male	38	3.46	.63			

** $p < .05$*

Table 8. The Relationship between the Trainees' Look at Critical Views and Their Experience of Going Abroad

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.	Significant Difference
Critical and contextual views	Between Groups	38,568	27	1,428	2,002	**,006***	Post hoc tests are not performed as one group has fewer than two cases.
	Within Groups	81,347	114	,714			
	Total	119,915	141				

Table 9. The Relationship between the Trainees' Position Regarding One-Size-Fits All Views and Experience of Communicating with Foreigners

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.	Significant Difference
One-size-fits-all views	Between Groups	16,690	21	,795	1,610	**,058***	Post hoc tests are not performed as one group has fewer than two cases.
	Within Groups	58,246	118	,494			
	Total	74,936	139				

** p < .05*

Lastly, according to One-way ANOVA results, there was a significant difference between those with an experience of going abroad (different purposes of being there; for education, travelling) and their critical views (p= .006 < .05) and also between those with the experience of communicating with foreigners (according to different frequencies; scarcely, a few times, sometimes and frequently) and their one-size-fits-all views was a slight or no difference (p= .058) as shown in Table 8 and 9. However, post hoc tests could not be performed as one group had fewer than two cases. The extent of their criticality was probably affected by their experience gained from interactions with foreigners, and worldviews.

6. Discussion and Conclusion

Considering the questionnaire results revealing that only about *ten percent* of all trainees (9,2 %) regarded the spread of English as value-laden or unneutral and that among 5 instructors (4 of them were university instructors at the trainees' department), *only 1* of them who worked at

a state high school was concerned about the spread and dominance of English during the interviews, I see that language teacher knowledge base in Turkish ELT context is constrained to schools of thought in the mainstream education and far from critical pedagogy that should inform the content and cultural knowledge (Troudi, 2005) of the pre-service teachers. Though there is an EFL context in which they know the social and cultural background of their learners, as the professionals of a globalised and pluralised world, they need to be aware of the value-laden and inherently problematic nature of the global spread of English (Gray, 2002) in order to form an ongoing reflective/explorative teaching agenda. Instead of being stuck among one-fits-all or pre-packaged methods including even the eclectic method that views the language teaching from humanistic or communicative approaches limited to the mere comprehensible input and output hypotheses, they should also draw on the post-methodological and critical concerns along with the social constructionist perspectives to find out their own recipes through, for example, action research during the reflection-in-action or -on-action (Schön, 1983) stages of their real experiences of teaching according to their own context (Alsagoff, 2012; Doğançay- Aktuna & Hardman, 2018).

Rather than an SLA-dominated teacher education programme, which only focuses on the theoretical parts of language teaching from the researchers' point of views, it should empower the would-be teachers to be flexible enough by showing the perspectives of practitioners/ teachers, and by building a connection between theory and practice as praxis. Likewise, in his plenary speech at an international ELT conference, Rod Ellis (2012) whole-heartedly stated that he changed the direction of his views on SLA in the favour of usefulness and applicability. He self-critically mentioned that he started to give the priority to what teachers can apply in the real teaching context, being selective of what is written in his green SLA book. That is why, he expressed his support for the emergence of 'ideas' and principles coming from the reciprocal relationship among SLA classroom researchers, teacher educators and teachers rather than big theories, models or methods. I believe such shifts in the academia, curricula and practice can only be realised through a critical awareness of the transformative structures within the TESOL world.

This study has critically examined both the perceptions of ELT trainees and instructors from a CALx perspective by using both qualitative and quantitative tools. If only interviews and group discussions had been conducted, the results would have displayed a misleading picture of the critical situation as these second-time volunteers during the interviews and discussions after filling in the questionnaires constituted a small and exceptional critical fraction of "the whole consensus about the 'neutral'

mainstream ELT", which is outstanding through the general results of the questionnaire. As a result of this mixed-methods study, the predominant views on and the 'one-size-fits-all' approaches to English usage and English language teaching (ELT), the rationales for the establishment of its legitimacy, and lastly, the contextual and critical views on English usage and ELT have been displayed with a view to exploring the extent to which they are receptive for alternative sociolinguistic realities. In addition, stronger orientation towards traditional centre-periphery dependency assumptions and essentialist notions of 'standard English' was found among the members of the Turkish ELT community. It is hoped that further studies conducted by more local researchers in Turkey and other contexts will focus on such critical issues in TESOL.

Though no prescribed, universal or ever-valid approach that neutralises ELT is available, most participants of this study were not aware of the linguistic imperialism and its detrimental effects; therefore, in the light of the findings, as Işık (2008) suggests, I see the following steps to be taken as essential for the Turkish EFL context: filtering the knowledge and adapting it to our particular context, making use of international role of English, analysing the extra-linguistic matters in language teaching, developing the local EFL materials according to the needs, values, worldviews in comply with a "glocal" language education policy, and these all can be effectuated through a transformative and ever-questioning critical perspective that must be held collectively by policymakers and other stakeholders in the HEC and the MoNE in Turkey.

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Chapter 6

COMPARISON OF PRIMARY MATHEMATICS TEACHERS AND CANDIDATES ' VIEWS ON COMPLEMENTARY MEASUREMENT AND EVALUATION TOOLS

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Introduction

The rapid development created by scientific and technological developments in the world shows its effects in many areas of life. Educational institutions are the leading institutions affected by these developments and changes. Individuals need to improve themselves in every aspect in order to keep up with these changes in social terms. Thanks to the qualified education to be given to individuals, it can be kept up with this development. For this purpose, our education system has an orientation from traditional understanding to multiple intelligence and Constructivist understanding. Education programs in Turkey after 2004 have been revised according to the constructivist approach. In the reformed curriculum, the ways to reach the information are given with alternative methods and techniques. It also includes activities based on student-centeredness that enable students to participate in research, inquiry, problem solving, and decision-making processes. (Fidan, Sak, 2012)

Since the 2005 academic year in Turkey, educational programs have been updated in accordance with the requirements of the era. When the curriculum is examined, it is seen that contemporary approaches are included in the curriculum. It is also seen that complementary measurement and evaluation tools are proposed in accordance with contemporary approaches in measurement and evaluation in educational programs. (Milli Eğitim Bakanlığı [MEB], 2017).

Measurement and evaluation, which is extremely important in the education process It plays an important role in recognizing and guiding students, determining the effectiveness of teaching and controlling the educational environment, identifying educational problems and searching for solutions, and developing programs (Atılgan, Kan and Doğan, 2013; Yılmaz, 1996). Thanks to measurement and evaluation, the information about how much of the goals determined in the program has been achieved and what are the deficiencies in learning can be reached. (Erden, 1998; Turgut, 1984; Yılmaz, 1996) In addition, measurement and evaluation gives the teacher the opportunity to provide professional development by benefiting from the evaluation results. (Yıldırım, 1983).

The answer to the problems related to education passes through the concepts and applications related to measurement and evaluation. Evaluation is an essential part of education and provides necessary data for easy understanding (Baykul, Gelbal and Kelecioğlu, 2001). A change to be made in the assessment and evaluation element of the curriculum will also affect the program's goal, content and learning - teaching process

(Demirel, 2009). These statements reveal the importance of measurement and evaluation in education.

The aim of complementary assessment and evaluation techniques developed as a complement to the deficiencies in traditional assessment and evaluation techniques and based on direct observation of student performance; to ensure that students can transfer the knowledge they have learned to real life and to make the information learned in this process meaningful for students (Bulut, 2006). This statement explains that complementary assessment and evaluation techniques should be used together with traditional assessment and evaluation techniques. The reason for the development of complementary techniques is to complement the shortcomings of traditional assessment and evaluation techniques and to use them as a whole, not to be used as an alternative.

There are differences between traditional and alternative assessment and evaluation methods. Traditional assessment methods, the aim is to allocate and knowing the product-oriented approach uses while alternative assessment methods, determine how learning takes place, and process-oriented approach is to follow with the product. The traditional measurement evaluation method is teacher-centered and success is evaluated, alternative measurement evaluation methods are student-centered and performance is evaluated. In addition, while the result is expressed as a grade in the traditional approach, it is expressed as a process and development in the alternative approach. (Çakıcı, 2008). Alternative assessments are defined as student-centered, meaningful, interesting, and student-appropriate assessment strategies outside of traditional understanding. Compared to objective-type question techniques, alternative assessment is seen to include effective participation and high-level thinking skills (Duban and Küçükyılmaz, 2008). In complementary measurement and evaluation techniques, there is a process-based evaluation. Complementary measurement and evaluation are more associated with real life than traditional measurement and evaluation, and students are more active in the process (Bahar et al., 2012). Çakıcı (2008) stated that in traditional measurement and evaluation studies conducted through multiple choice tests, gap filling, matching questions, right and wrong questions, a student's level of knowledge on any subject could not be explained in detail. Techniques used in alternative assessment and evaluation are: "concept map, word association, portfolio, performance evaluation, diagnostic branched tree, project, group evaluation, self-evaluation, observation technique, structured grid, interview technique, peer evaluation". (Bahar et al., 2012).

In literature reviews, it is seen that expressions such as alternative measurement and evaluation tools (Çalışkan and Yiğittir, 2011), alternative

measurement techniques (Taşdemir, 2011) and alternative measurement and evaluation approaches (Şimşek, 2014) are used regarding complementary measurement and evaluation. However, complementary measurement and evaluation tools are not used as an alternative to traditional measurement tools when they cannot be used. What is intended to be defined as alternative measurement tools is that the new measurement tools added to the program are supportive and complementary to traditional measurement tools. (Anıl ve Acar, 2008). Therefore, in this study, it will be provided to use complementary measurement and evaluation tools instead of the term of alternative measurement and evaluation tools suggested in the program.

Teachers ' level of knowledge about measurement and evaluation is one of the important factors in improving the quality of the educational process. Measurement and evaluation activities, which are important in student success decisions, make it necessary for the teacher to gain measurement and evaluation attitude and competence (Turgut, 1984).

Nitko (2004) measurement and assessment in education standards for teacher competence; assessment and evaluation techniques appropriate for their classes, teachers ' selection and development of measurement and evaluation techniques developed scoring, interpretation, and application, measurement and evaluation in education using the results of measurement results and notes of the methods for converting arranged as to have the ability to develop it. In addition, Nitko (2004) stated that teachers should be sufficient to report measurement and evaluation results to students, families, other stakeholders and instructors.

As a result of a literature review, Pınar (2011), Şimşek (2011), Erdemir (2007) studies on measurement and evaluation found that teachers and candidate teachers did not gain enough knowledge and skills in their undergraduate education. Again, from the complementary assessment studies in the literature, it is seen that the teachers do not have enough information about complementary assessment tools. (Çakan, 2004; Güneş, 2007; Parmaksız, 2004; Adanalı, 2008; Okur and Azar, 2011; Şanlı and Pınar, 2017). In addition, in the literature review, it was observed that teachers faced many problems in complementary assessment and evaluation. . (Sak, 2012; Özenç, Doğan and Çakır, 2017; Topkaya and Yılar, 2016). Studies related to mathematics teachers in the field of complementary measurement and evaluation are as follows. (Fidan and Sak, 2012) examined primary school mathematics teachers' views on complementary assessment techniques and (Karalök, 2014) examined secondary school mathematics teachers' math lesson complementary assessment techniques' profiles. (Akkoc, 2012) examined pre-service training applications and development of mathematics teacher candidates for the integration of computer-aided measurement and evaluation tools

into mathematics teaching. However, it is a matter of curiosity to what extent secondary mathematics teachers have knowledge about complementary assessment and evaluation, their positive and negative thoughts and the frequency of using these methods in the classroom. As a result of this research, it was decided to examine how secondary mathematics teachers evaluate the subject of complementary measurement and evaluation in various dimensions, such as competence, recommendations for use.

Materials and Methods

The descriptive approach was used in this study because the aim was to describe and explain the investigated situation in detail, to make evaluations in line with the standards and to reveal possible relationships between events (Çepni, 2007). In addition, during the investigation of the problem of the study, the case study design was used. The reason for choosing this pattern in the study is that it allows one aspect of the researched problem to be studied in depth and in a short time. (Yin, 2003; Çepni, 2007) Semi-structured interview was used as data collection tool in the study.

The study sample consists of 12 people, including 6 Primary Mathematics teachers with demographically different characteristics who work in different schools in Niğde province and 6 primary mathematics teacher candidates. This difference is thought to be beneficial in ensuring effective results in research. By Miles and Huberman (1994), it is accepted that the reliability percentage has been reached when the percentage of agreement regarding the reliability of the interview questions is 70%. The prepared interview questions were examined by three faculty members who are experts in the field of study, and the agreement between them was realized at a rate of 80% and the validity and reliability of the interview questions were tried to be ensured. While determining the sample, detailed information about the problem situation and the purpose of the study was given to the primary school mathematics teachers and candidates by the researcher, and the selection of the participant teachers was based on volunteerism. Appropriate hours for the interviews were determined and a digital video meeting was held due to the pandemic. The demographic information of the teachers who participated in the interview is given in Table 1.

Table 1: *Demographic Characteristics of Interview Teachers*

Teacher	City of Duty	Gender	Service time (Year)
1	Niğde	Female	4
2	Niğde	Female	6
3	Niğde	Male	13
4	Niğde	Male	17
5	Niğde	Male	22
6	Niğde	Female	27

The teachers who participated in the interview were named T1, T2,... T6 , and the teacher candidates were named C1, C2,... A6. Among the participants, T5 holds a master's degree and T6 is a PhD. Interviews with participating teachers and candidates lasted 25-30 minutes on average.

Results and Discussion

Semi-structured interviews were conducted with 6 primary school mathematics teachers and 6 pre-service teachers to examine and compare the awareness of primary school teachers and primary school teacher candidates for complementary teaching assessment.

Opinions of teachers and candidate teachers on the concept of complementary measurement and Evaluation

The answers given by the interviewed teachers and candidate teachers about what the concept of complementary assessment are grouped as follows.

Table 2*: Codes for the concept of complementary measurement and evaluation*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
Assessment outside the traditional	X				X		X	X	X			
Evaluation depending on the process rather than the result		X								X		
Evaluation that removes the deficiencies						X					X	X
I don't remember.			X	X								

During the interview process, T3 and T4 replied "*I don't remember what the supplementary assessment statement is*".

Opinions of teachers and candidate teachers on what complementary measurement and evaluation tools are

The answers given by the interviewed teachers and candidate teachers regarding what complementary assessment tools are grouped as follows.

Table 3: *Codes of what complementary assessment and evaluation tools are*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
Portfolio		X			X			X			X	X
Structured Grid		X			X	X			X	X	X	X
Project	X					X			X	X		
Performance Evaluation	X	X				X		X	X	X		
Rating scale		X					X	X				
Concept Map		X				X			X			
Diagnostic Branched Trees						X		X	X			X
Word Association Tests						X			X			
Self-evaluation		X				X		X	X			
Peer Evaluation		X				X		X	X			
Interview		X				X						
I have no idea			X	X								

During the interview, T4 said: "*It's been a long time since I graduated from University; I haven't used any of these tools in classes. I don't know the answer to that question.*" and "*Portfolio and structured grid come to my mind as complementary assessment and evaluation tools*" was answered by T5.

Opinions of teachers and candidate teachers on the importance of using complementary measurement assessment in lessons

The answers given by the interviewed teachers and candidate teachers on the importance of using complementary measurement assessment in lessons are grouped as follows.

Table 4: *Codes on the importance of using complementary measurement assessment in lessons*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
It is useful in terms of recognizing and following the student.		X				X			X			
Allows students to examine in detail.					X		X	X				
The student feels valueable.	X											
Students get more feedback						X		X	X			
It allows us to make up for the shortcomings.	X					X			X		X	
It allows us to evaluate the whole process.						X				X		X
Provides the development of 21st century skills.									X			
I have no idea			X	X								X

During the interview, T3 and T4 replied, "*I have no answer to this question in my mind*", and T5 said "*After traditional assessment, we only have information about what the student wrote on a written paper, but complementary assessment allows students to examine their mistakes in more detail.*"

Opinions of teachers and candidate teachers on what are complementary measurement and evaluation tools that can be used in mathematics lessons

The answers given by the interviewed teachers and candidate teachers about what complementary measurement and evaluation tools can be used in mathematics courses are grouped as follows.

Table 5: *Codes of complementary measurement and evaluation tools that can be used in mathematics lessons*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
Portfolio		X					X	X				X
Structured Grid		X				X			X			X
Project	X					X			X			
Performance Evaluation	X	X				X	X		X			
Rating scale		X										
Diagnostic Branched Trees						X		X	X			X
Word Association Tests		X				X			X			
Interview		X										
I have no idea			X	X	X					X	X	

During the interviews, C2 said, "*I think the most suitable complementary assessment and evaluation tool for mathematics lessons is portfolio. Also, diagnostic branched trees can be used. "* and T1 replied "*I am giving projects and performance assignments on subjects suitable for mathematics lessons."*

Opinions of teachers and candidate teachers on the reason for choosing a complementary measurement and Evaluation Tool used in mathematics lessons

The reasons for choosing complementary measurement and evaluation tools that can be used in mathematics lessons of the interviewed teachers are given in Table 6.

Table 6: *Codes for the reason for choosing the complementary measurement and evaluation tool used in mathematics lessons*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
We'll get pre - written information.		X										
It allows us to get to know the student better.							X	X				
It allows to increase students ' success.						X			X	X		X
I don't use/I have no idea	X		X	X	X						X	

In the interview about the reason for teachers to choose the complementary assessment and evaluation tool / tools they chose in mathematics lessons, T2 said, "*I think that the written dates are too late to learn the general situation of their students while teaching mathematics. I use these tools to give feedback to pre-written students and to get information about their general situation.*"

Opinions of teachers and teacher candidates regarding competencies for complementary assessment

The ability of interview teachers about complementary assessment tools in mathematics lessons is shown in Table 7.

Table 7: *Codes on teachers ' competence for complementary measurement and evaluation*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
I'm well enough						X						
I'm insufficient.	X	X	X	X	X		X	X	X	X	X	X

In the continuation of this question, teachers are asked: "Have you received in-service training?" the question has been asked. As a result of this question, it was learned that only T6 received in-service training.

Opinions of teachers and candidate teachers on problems that may be encountered during the use of complementary measurement and evaluation tools

The answers of the interviewed teachers about the problems that may be encountered during the use of complementary measurement and evaluation tools are given in Table 8.

Table 8: *Codes for problems that may be encountered during the use of complementary measurement and evaluation tools*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
Being too time and costly					X			X	X			
Crowded classes					X							
Insufficient level of Student Readiness	X											X
Lack of knowledge of teachers	X						X					
Redundancy of in-class problems												
Student apathy										X		
The shortage of curriculum development	X	X			X	X		X	X	X		
Central Exam Print						X						
Inadequacies stemming from school and classroom						X						
Difficulty in selecting tools suitable for math subject								X				
Inability to Obtain Objective Results											X	
I have no idea			X	X								

Numerous reasons were listed by the teachers about the problems that may be encountered during the interview. T1 "*I have a lot of in-class problems in classrooms, although I work in high school, I have difficulties in conveying even simple knowledge to students, which causes me to have a shortage of curriculum development. I cannot find the opportunity to evaluate complementary measurement due to the excess of these problems.*

In addition, because the assessment and evaluation course we take at universities is theoretical, I encounter deficiencies in the application part."

T2 *" I am in a constant shortage of curriculum training in classrooms, I work in a vocational high school, and I need to constantly reinforce it so that students can understand the subject. That's why I'm in a constant rush. Complementary measurement and evaluation studies also require a lot of time because I have problems.*" he replied.

Recommendations of teachers and candidate teachers to reduce problems that may be encountered during the use of complementary measurement and evaluation tools

The responses of the interviewed teachers to solving problems related to the use of complementary measurement and evaluation tools are given in Table 9.

Table 9: *Codes for reducing problems that may be encountered during the use of complementary measurement and evaluation tools*

Opinions on the subject	T1	T2	T3	T4	T5	T6	C1	C2	C3	C4	C5	C6
In-service training should be provided				X		X						
Class availability should be reduced	X				X				X			
Education-parent support should be increased in training					X							
The number of math class hours should be increased		X										
In-service training must be mandatory						X						
The curriculum should be lightened	X					X						
Students ' interest should be increased										X		X
Teachers ' awareness should be increased						X						
Measurement and evaluation in the university should be practical						X	X					
Internship duration should be increased						X	X				X	
Use must be mandatory								X				

Of the participants, T1 made the following suggestions: "I*t would be better if the curriculum of the math course was relaxed and class availability was reduced*."

During the interviews C4 said, "*I think the interest and awareness of the students about complementary assessment and evaluation studies should be increased. In doing this type of work, encountering student apathy may disrupt the study.*"

T6 from the participants made the following suggestions:

"*First of all, the first thing to do should be to increase the awareness of the teacher. The most beneficial tool for the student is the project and performance tasks, the school administrations should control the correct application of these tasks to the students. In order for this process to proceed correctly, teachers and school administrations need to receive practical in-service training in this field. In fact, these trainings should be compulsory. It should be ensured that teachers' implementation of complementary assessment and evaluation in their lessons is implemented in cooperation within the school in line with the decisions of the class*. "

Conclusion

Teachers and teacher candidates of elementary mathematics measurement and evaluation definition of the expression, complementary, complementary measurement and evaluation tools, courses, and the difficulties in measurement and evaluation the importance of using complementary, complementary to the training they receive related to measurement and evaluation, the opinions towards a solution that can be done to reduce the problems examined.

Primary school mathematics teachers and candidate teachers were asked what supplementary assessment and evaluation is other evaluation such as written and oral exams, an evaluation in order without depending on the result, determining and evaluating the student individually according to their abilities by taking the student into the center, and evaluation definitions to eliminate the deficiencies. Complementary assessment and evaluation According to Öztürk (2011), the evaluation of the process together with the product is a multiple study in which all aspects of the individual are taken into account by considering all individual differences (gender, learning styles, cognitive styles, attitudes, etc.), according to Taşdere (2010). According to Bahar et al. (2006), the assessment of assessment approach is all evaluations outside the traditional assessment circle, including multiple-choice tests with only one correct answer. Çakıcı (2008) stated that complementary assessment and evaluation is student-centered and performance is evaluated, and while the result is

expressed as a grade in the traditional approach, it is expressed as the process and development in the alternative approach. It was observed that the definitions of the teachers who made the definition of supplementary assessment and evaluation were parallel to the definitions in the literature. However, the fact that some of the teachers stated that they did not know the answer to this question showed that they had a lack of knowledge on this subject. It is believed that the complete response of teacher candidates to this question is due to the fact that their knowledge is fresh.

When primary school math teachers and candidate teachers were asked what complementary assessment tools were, some of the teachers stated that they did not know the answer. The teachers who answered this question gave answers to portfolio, structured grid, project, performance evaluation, scoring scale, concept map, diagnostic branched, word association tests, self-evaluation, peer evaluation, interview. Teacher candidates were given portfolio, structured grid and diagnostic branched trees responses. Bahar et al. (2012), the tools in complementary assessment and evaluation are "concept map, word association, portfolio, performance evaluation, descriptive branched tree, project, group assessment, self-assessment, observation technique, structured grid, interview technique, peer assessment." has been defined. Definitions made by teachers and candidates for teachers have been found to coincide with the definition found in the literature. However, it can be said that both teachers and teacher candidates have a lack of knowledge on this subject because some of the teachers do not know what complementary assessment tools are and stated that there are only a few of the candidate teachers.

When teachers and pre-service teachers were asked about the importance of using complementary assessment in lessons, some of the teachers stated that they did not know, and the common answers by both teachers and pre-service teachers are as follows;

- It is useful for getting to know the student and following his / her progress.
- Allows students to examine their mistakes in more detail.
- Students get more feedback about themselves.
- It enables us to complete the deficiencies of traditional measurement and evaluation results.
- It enables the development of 21st century skills.

In addition, the answer was given by the teachers, "The student feels valuable because the student is taken to the center". According to Coşkun

(2007), the benefits of measurement and evaluation to the teacher and the student are as follows:

- It allows the teacher to get to know the student.
- Provides feedback to the student on his / her strengths and weaknesses.
- Provides feedback to the student on how to change or improve his/her behavior.
- It prepares the basis for decisions about which courses the student is ready to take, which supplementary studies he / she needs to do, which job or school he / she can be advised to attend.
- It serves as a source for teacher and administrator to make plans for the future.
- Provides more qualified education and training services.
- It helps the teacher to guide in a better way.
- Provides feedback to the teacher about how self-knowledge and teaching methods are sufficient.
- It allows parents to be informed about the situation and development of the student.

It was determined that the answers of the teachers and teacher candidates were in line with the information in the literature, but there were some lack of information. In addition, it was determined that teachers were able to look at the question from a student perspective more than candidate teachers. This situation is thought to be due to their active teaching profession.

When teachers and candidate teachers were asked what supplementary assessment and evaluation tools that can be used in mathematics lessons, about half of the teachers and candidate teachers stated that they did not use / did not know. From here, it was determined that teachers do not use these tools much in their lessons, but complementary assessment techniques should be used for reasons such as students' getting to know themselves with techniques such as self-assessment, at the same time providing more permanent learning and contributing to student success (Karahan, 2007, Wallace and Mintzes, 1990). It is thought that candidate teachers' applications for complementary assessment and evaluation tools that can be used in mathematics lessons in undergraduate courses will have positive results in terms of having more insight on this issue.

It was revealed that teachers who used complementary assessment and evaluation tools in their lessons used performance task, project

task, word association test, diagnostic branched tree, structured grid, portfolio interview tools. The reasons for using these tools were stated as enabling us to get information about the student before the exam, to get to know the student better, and to increase the general success of the students. Sırkıntı, (2007) emphasized the use of portfolios due to the fact that complementary assessment approaches in mathematics lesson make students active. Bahar et al. (2006), on the other hand, emphasized the need to use different measurement tools in the process, which can reveal students' individual abilities, high-level thinking skills, manual skills, associate their prior knowledge with their new knowledge while solving complex problems, reason in real life (authentic) situations. The reasons teachers provide for the use of these tools are in line with the benefits offered by Coşkun (2007).

Only one of the teachers feels sufficient in using complementary assessment and evaluation tools, others find themselves inadequate to use these tools in lessons. Turgut (1984) emphasized that the quality of complementary assessment and evaluation studies depends on teacher competence. The candidate teachers attributed the reason they felt inadequate to the theoretical assessment and evaluation course they took.

According to Çepni (2007), the low level of knowledge of teachers is due to the low quality of the assessment and evaluation course taken by teacher candidates in undergraduate education and the importance of theoretical knowledge rather than practice in these lessons. In addition, according to Gelbal and Kelecioğlu (2007), insufficient inclusion of measurement and evaluation in undergraduate programs was seen as a reason for teachers' lack of knowledge. In this context, it enables us to reach the idea that teachers' lack of knowledge and inadequacy may be due to undergraduate education. It was observed that only one of the teachers received in-service training in the field of complementary assessment and evaluation. Neukom (2000), in a study he conducted on this subject, stated that the success to be obtained from alternative assessment and evaluation techniques depends on both the teacher and the student, and especially teachers should be given in-service training before using alternative assessment and evaluation techniques. (Trns. Şenel et al., 2009). Kutlu, Büyüköztürk, and Doğan (2007) made suggestions in their studies that teachers should be informed about new assessment and evaluation methods in a planned way, and measures should be taken to train teachers that are better equipped for teacher training programs. In this context, in-service training should be provided to those who do not receive training in the field of complementary measurement and evaluation.

Teachers can discuss the problems they encounter or may be encountered during the use of complementary assessment tools; It was

expressed as taking too much time, crowded classes, insufficient level of readiness of students, insufficient knowledge of teachers, excessive in-class problems, lack of student interest, inappropriateness of mathematics lessons, shortage of curriculum development, central exam pressure, inadequacies stemming from the school and the classroom. In addition to these answers, the candidate teachers answered the difficulty of choosing the appropriate tools for the subjects of the Mathematics lessons and the inability to obtain objective results. The problems encountered can only be prevented by having sufficient scientific knowledge and practical experience in complementary assessment and evaluation.

When teachers were asked for their suggestions to reduce the problems encountered during the use of complementary assessment tools; The class availability should be reduced, parent support should be increased in education and training, the number of mathematics lesson hours should be increased, teachers 'in-service training in this area should be compulsory, the mathematics lesson curriculum should be reduced, activities should be carried out to increase students' interest in assessment and evaluation, teachers should be aware of this area, teachers should be complementary in lessons They stated that the application of measurement and evaluation should become mandatory. The teacher candidates suggested reducing the class availability, increasing student interest and increasing the internship period. When the suggestions given were compared, it was seen that the teachers answered the question by looking at a wider spectrum. This situation is thought to be due to their experiences in the teaching profession. Considering that taking all suggestions into consideration is an important factor in increasing the quality of use of complementary assessment and evaluation tools, it is thought that steps towards reducing these problems will be beneficial.

According to the results obtained in the study I conducted, the following recommendations were reached. Turgut (1984) stated that measurement and evaluation activities, which are important in student achievement decisions, require teachers to gain measurement and evaluation attitude and competence, and in the study conducted, it was revealed that teachers had a lack of knowledge about complementary assessment and evaluation. In this context, it is thought that teachers must have sufficient knowledge and skills for measurement and evaluation in education in order to make healthy decisions about students in education and to increase students' overall success.

As a result of the research, it was observed that with the increase in the education levels of the teachers, their knowledge and awareness about complementary assessment and evaluation increased. It is thought that encouraging teachers for postgraduate and doctorate education in

the field of education will make a positive contribution to the increase in complementary assessment and evaluation studies.

It has been concluded that studies aimed at increasing the awareness of both teachers and students in order to increase the supplementary assessment and evaluation activities of teachers in the classrooms will be beneficial. Informing the teachers of MEB about complementary assessment and evaluation techniques and the benefits of these techniques will ensure that these techniques are preferred more.

It is thought that providing teachers and school administrations with in-service training in the field of complementary assessment and evaluation, even making these trainings compulsory and ensuring the supervision of complementary assessment and evaluation activities in schools can create a healthy measurement and evaluation philosophy.

It is thought that teachers' use of complementary assessment and evaluation approaches of academicians in undergraduate education in their lessons, application-based assessment and evaluation education given during undergraduate education, and providing qualified in-service training in the field will support the formation of a quality assessment and evaluation philosophy in mathematics education. As emphasized by Hew and Brush (2007), a successful teacher training program should include practical activities.

It should be ensured that teachers prefer these tools more by eliminating the deficiencies such as the lack of material that teachers encounter while using complementary assessment and evaluation approaches in their lessons, the inappropriateness of the classroom environment and the lack of resources.

In addition, it is thought that the studies that will reveal the relationship between the measurement and evaluation course contents given in the undergraduate period regarding the use of complementary measurement and evaluation tools and the measurement and evaluation practices carried out in mathematics lessons in the field will make a significant contribution to the field.

Acknowledgements

I would like to thank the participants who helped me carry out this work and all the institutions that gave me the opportunity to form this chapter of the book.

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Chapter 7

EVALUATION OF THE OPINIONS OF PHYSICAL EDUCATION TEACHERS ABOUT THE PROBLEMS OF THE CANDIDATE TEACHER TRAINING PROCESS AND THE SUGGESTIONS FOR SOLUTIONS

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INTRODUCTION

Due to the great role of the concept of teaching in the teaching profession, the definitions to be made about how the teaching should be can constitute the starting point of the profession. Different theories help teachers to make these definitions. However, these definitions alone are not sufficient; the teacher must be able to find his own way and follow the path he finds. It is also known that students have different learning conditions and their experiences affect their learning conditions. Students' readiness levels also differ. Therefore, what a teacher should do is to consider the student group, to determine the appropriate method with the help of personal and professional characteristics, and to help create behavioral changes in students in accordance with the purpose of education (Philips and Soltis, 2005). Teachers' attitudes on issues such as gaining a professional identity and developing professionally are influenced by the experiences they have gained in the first years of their career (Balkar and Şahin, 2014). In terms of increasing the quality of education in the teaching profession, the process of adaptation to the profession is very important. Because teachers experience difficulties in the first years of their profession and need professional support from school administrators, colleagues and the Ministry of National Education to which they are affiliated. Therefore, it is important for teachers to receive professional support in the first years of their career (Toker-Gökçe, 2013).

The first comprehensive application concerning the upbringing of probationary officers in Turkey were made between 1995 and 2015. Research has shown that this candidate education program is insufficient in terms of meeting the needs of teachers, purpose and content (Ayvaz Düzyol, 2012; Çimen, 2010; Yıldırım, 2010). With the subsequent change, a different approach was adopted in the training of prospective teachers since the 2015-2016 academic year. With the directive issued by the Ministry on March 2016, it was decided that candidate teachers receive start up training in the first month of their candidacy, under the responsibility of the school principal and advisor teacher. This training consists of classroom and in-school activities, out of school activities and in service training seminars (MEB, 2016).

The regulation on the training of candidate civil servants of the Ministry of National Education, subject to the basic, preparatory and practical training of candidate teachers, in the form of those who are appointed as civil servants for the first time in the central and provincial organizations of the Ministry; On the other hand, he explained the candidacy training as general education which includes basic, preparatory and applied training organized for the training of candidate civil servants (MEB, 1995).

Duran, Sezgin and Çoban (2011) also defined the candidate teacher as a teacher who was appointed to an official or private institution affiliated to the Ministry of National Education, who started the profession but did not receive his nobility. Candidate education and program to the prospective teacher; It is also thought to show how to learn, teach, survive and achieve (Ingersoll, 2012). The prospective teacher training program, which was launched in 2016, can be seen as a program that goes beyond formality and places emphasis on practice. However, it is necessary to carry out monitoring and evaluation studies to determine whether a program implemented for the first time has reached the desired goals or not. Therefore, it is necessary to obtain the opinions of the relevant stakeholders about the program and its applications in order to eliminate the difficulties and problems encountered in the implementation and to make the program operational (İlyas, Coşkun and Toklucu, 2017).

The process of training candidate teachers is implemented in schools or institutions where prospective teachers are assigned by the National Education Directorates within a program the scope of which is determined by the ministry, under the guidance of the administrators and advisors of that institution or school. At the end of the training process, the performances of prospective teachers are evaluated (MEB, 2016). Candidate teachers have to work for at least one year as a condition of taking the written and oral exam to be held by the Ministry and must be successful according to the performance evaluation (MEB, 2015). Candidate teachers are obliged to participate in all activities in the study program during the training process, to comply with the instructions of the supervisor and institution administrators, and to act in accordance with the National Education Legislation in all activities throughout the process. In the first 14 weeks of the process of training candidate teachers, which lasts about 24 weeks, the candidates are trained by providing a total of 474 hours of training in order to provide the necessary gains in the classroom, inside and outside the school. After this 14-week process, candidates participate in in-service training activities for a total of 168 hours in a 10-week period. In the new prospective teacher training system, international developments in education, national and international educational projects, projects within the scope of social responsibility, addiction and guidance, media literacy and social media use, case study and evaluation, social and cultural activities, in our culture and civilization The foundations of educational understanding and communication skills were included in the scope of in-service training seminars (MEB, 2016).

The basis of teachers' professional duties is to ensure that their students learn. Accordingly, teachers should be equipped with professional competencies to fulfill their duties (Çubukçu and Gültekin, 2006). It is

very important for the teacher, who has sufficient knowledge about his field, to be able to gain the knowledge he has acquired to his students. For this reason, it is very necessary and important for a teacher to have the knowledge of the teaching profession and the general cultural knowledge that will help the teacher to do the profession better (Özer and Gel, 2008). Teachers should attend some seminars in the fields of philosophy, sociology and fine arts, which can be described as human sciences, social sciences, cultural sciences, in universities, receive certificates and continue postgraduate programs in order to improve their professional qualities. Of course, it is also very important that teachers are encouraged in this regard (Erkoç, 2010).

The candidacy period of teachers is seen as "a process that has practical value in the preparation of the teacher candidate for the profession and where the candidate meets the practice most intensely" (Ekinci, 2010). As in every profession, there are difficulties in the transition from student to teaching profession for prospective teachers in the first year. The teacher education that teachers receive before the service cannot provide them with the necessary knowledge and skills to adapt to these new conditions and overcome the difficulties they encounter. Therefore, the first year in the profession is seen as the time to succeed or break (Kozikoğlu, 2016). As a matter of fact, researches on this subject show that teacher candidates who have just graduated from university have difficulties in getting used to the school environment and environment and their first position (Sarı and Altun, 2015; Başar and Doğan, 2015; Öztürk, 2014; Özer, 2013; Öztürk and Yıldırım, 2012 ; Shirtless, Kan, Biçer and Yetkiner, 2010; Öztürk, 2008; Avalos and Aylwin, 2007; Erdemir, 2007; Korkmaz and Akbaşlı, 2004; Yalçınkaya, 2002).

February period in 2016 realized 30 thousand teachers assignment examined the literature on the candidate's teacher training programs that subjected it is observed that the limited number of studies carried out in Turkey. Examining the opinions of prospective teachers on the candidate teacher training program in the literature (Ulubey, 2018; İlyas, Coşkun, and Toklucu, 2017; Altıntaş and Görgen, 2016; KürümYapıcıoğlu, Öztürk and Yetim, 2016; Oral and Demir, 2016; Sarıca and Turan-Özpolat, 2016) examining the opinions of prospective and counselor teachers about the prospective teacher training program, examining the opinions of prospective teachers, advisors and school administrators on the candidate teacher training process (Tunçbilek and Tünay, 2017; Sıvacı, Kuzu and Kuzu, 2016; Köse, 2016) In its first year, it was determined that the prospective teachers' vision changed and the problems they encountered (Ergünay and Adıgüzel, 2016).

In most of the studies in the literature, it is seen that the prospective teacher training program was examined only according to the opinions of the prospective teachers, and in only one study the prospective teacher training process was examined according to the views of the relevant stakeholders (prospective teachers, advisor teachers and school administrators). The research conducted by Tunçbilek and Tünay (2017) is a quantitative study in which data are collected using a scale. However, it can be said that there is a need for studies that examine the views of different stakeholders regarding the prospective teacher training program in depth (Kozikoğlu and Soyalp, 2016).

It is a very difficult process for a prospective teacher who has just started teaching with candidacy training to adapt to both the institution he will work and his profession, and to cope with the difficulties he faces. In this study, it was aimed to evaluate the opinions of physical education teachers regarding the problems encountered in the process of training prospective teachers and their solution suggestions. In this context, answers to the following questions were sought.

1. What are the opinions of the candidate physical education teachers about the candidacy process?

2. What are the problems that prospective physical education teachers have encountered in the classroom?

3. What are the problems that prospective physical education teachers have encountered in in-school work?

4. What are the problems faced by prospective physical education teachers in in-service training programs?

5. What are the opinions of the candidate physical education teachers about the exams given at the end of the candidacy process?

6. What are the suggestions of the candidate physical education teachers regarding the process?

METHOD

Qualitative research is a method that offers the researcher flexible movement, and offers different approaches in data collection method, analysis, and research patterning according to quantitative research (Gay, Mills, & Airasian, 2006). Qualitative research is defined as a research in which qualitative data collection methods such as observation, interview and document analysis are used, and a qualitative process is followed to reveal perceptions and events in a realistic and holistic manner in the natural environment. Qualitative research is an approach that prioritizes researching and understanding social phenomena within the environment

they are connected to, with an understanding based on theorizing (Yıldırım & Şimşek, 2016). The research design is the Phenomenology pattern, one of the qualitative research designs. The phenomenology pattern focuses on phenomena that we are aware of but do not have an in-depth and detailed understanding. The interview method was used in the study, as it would be effective in obtaining more detailed and detailed information about the opinions, approaches and comments of the security forces on internet use. Through interviews, which is a systematic data collection process determined by a research design, unobservable phenomena such as experiences, attitudes, thoughts, intentions, interpretations, mental perceptions and reactions are tried to be understood (Yıldırım & Şimşek, 2016). The interview method is prepared to obtain the same type of information from different people by addressing similar issues (Patton, 1987: 111; cited in Yıldırım & Şimşek, 2016).

Research Group

In the study, internet use cases of physical education teachers were examined. For this purpose, the study group of the study consists of candidate physical education teachers, who are working within the Gaziantep Provincial Directorate of National Education. Maximum diversity sampling, which is one of the purposeful sampling methods, was used in the selection of the study group. According to Yıldırım and Şimşek (2016), the aim is to create a relatively small sample and to reflect the diversity of individuals who can be a party to the problem studied in this sample to the maximum extent. The purpose of creating a sample based on maximum diversity is to try to find out whether there are any common or shared phenomena among the diverse situations in order to generalize and to reveal the different dimensions of the problem according to this diversity (Yıldırım & Şimşek, 2016). The number of physical education teachers in the sample group in this study was determined to be

20. The data about the research group are included in Table 1.

Table 1: *Personal Characteristics of Research Group (N = 20)*

Variables	Groups	n	%
Gender	Male	12	60
	Female	8	40
Settlement of Duty	Provincial center	14	70
	District	6	30
Education	License	17	85
	Postgraduate	3	15

When Table 1 is examined, 60% of the participants are male physical education teachers and 40% are female physical education teachers. Accordingly, the majority of the participants are male physical education teachers. When we examine the place where the participants work; 70% of them work in the city center and 30% work in the district. 85% of the participants are undergraduate graduates and 15% are graduate physical education teachers. It is seen that the majority of the participants are undergraduate degrees.

Preparıng Open-Ended Questıons and Practısıng

In the study, a semistructured interview form consisting of 6 items was used to collect qualitative data. Through the interview technique, which is frequently used in qualitative research, the researcher tries to understand unobservable situations such as attitudes, experiences, intentions, thoughts, mental perceptions, comments and reactions (Yıldırım & Şimşek, 2016). In order to develop the interview form, an interview form was prepared by making a comprehensive literature review. While preparing the semi-structured interview form, which is used as a data collection tool, the researcher was first surveyed by the field and a semi-structured interview form question pool was created with questions that could be asked to the security forces on the subject. Then, the questions created in the presence of three experts were examined and the semi-structured interview form was finalized. None of the participants included in the study were forced to participate in the study, and the confidentiality principle was carefully observed during the application and collection of the questionnaires. In the research, interviews were conducted with 20 volunteer physical education teachers working within the Gaziantep Provincial Directorate of National Education using a semi-structured interview form. The interviews were recorded with a voice recorder and then these recordings were written down.

Data Collection

The qualitative research data were collected from 20 candidate physical education teachers working within the Gaziantep Provincial Directorate of National Education. One-on-one and face-to-face interviews were conducted with all of the participants. During the interview process, interviews were conducted with those who wanted to participate in the research voluntarily and with permission for the place and time they deemed appropriate for them. A recording device and note-taking technique were used to record the interviews. The interviews lasted between 15 minutes and 45 minutes.

Data Analysis

The data obtained in written form through the questionnaires were analyzed by using the content analysis method. In the content analysis method, various categories and themes are obtained by encoding the words in a text created by qualitative data according to various criteria (Büyüköztürk et al.2012). The purpose of this analysis technique is to reach various concepts that will make sense of this data based on the raw data obtained and to explain the relationships between these concepts (Yıldırım and Şimşek, 2016). The data obtained from the interview form used in the study were recorded with a voice recorder. After the application, the qualitative data in the voice recordings containing the answers of the security forces were transferred to the computer environment by the researcher. Then, qualitative data were analyzed by content analysis method. Content analysis technique, which is frequently used in the analysis of the data obtained from the questions in the interview form, was used. The aim is to reach concepts that can explain the collected data (Yıldırım and Şimşek, 2016).

The steps followed are as follows;

Collection of research data

Coding of data

Creating themes

Organizing data according to codes and themes

Interpretation of the findings

FINDINGS and COMMENTS

In this section, the findings regarding the data obtained after the interviews with the working group are included.

Table 2. Distribution of prospective physical education teachers' opinions on the candidacy process.

Themes	n	%
A positive practice	10	24.4
Tiring and inefficient application	9	22
Negative practice	8	19.5
We learned something about administrative affairs	8	19.5
An unfair practice	4	9.8

Moderately positive practice	2	4.8
Total	41	100

In Table 2, when the opinions of the candidate physical education teachers participating in the study regarding the candidacy process are examined; 24.4% of them stated that it was a positive practice, 22% of them stated that it was an exhausting and inefficient practice, and 19.5% of them stated that it was a negative practice. In addition, some of the candidate physical education teachers participating in the study stated that 19.5% had learned something about administrative affairs, 9.8% was an unfair practice, and 4.8% stated that it was a partially positive practice. It was observed that the participants expressed more than one opinion.

Table 3. Distribution of the opinions of the candidate physical education teachers on the problems they encountered in the classroom.

Themes	n	%
On classroom management	11	29.7
About communication with the student	10	27.1
Students being indifferent	9	24.3
Candidate teacher passive	7	18.9
Total	37	100

In Table 3, when the problems encountered by the candidate physical education teachers participating in the study are examined, 29.7% stated that they had problems in classroom management and 29.1% in communicating with the student. In addition, some of the candidate physical education teachers who participated in the study stated that 24.3% of the students were indifferent and 18.9% of them stated that they had problems due to the candidate teacher being passive. It was observed that the participants expressed more than one opinion.

Table 4. Distribution of prospective physical education teachers' views on problems encountered in in-school work.

Themes	N	%
Administrator and advisor teacher not having enough information about the process	13	17.9
Inadequate physical and environmental conditions	12	16.5
Lack of equipment	12	16.5

Not giving enough observation opportunities to the prospective teachers in administrative affairs	10	13.7
Not getting enough support from the advisor teacher	8	10.9
Candidate teacher's workforce intensity	8	10.9
Administration's harsh attitude towards prospective teachers	6	8.2
Inability to communicate with other teachers	4	5.4
Total	73	100

In Table 4, when examining the opinions of the candidate physical education teachers participating in the study on the problems they encountered in the in-school studies, 17.9% of the manager and consultant teacher did not have enough knowledge about the process, 16.5% were inadequate physical and environmental conditions, 16.5% ' i, 13.7% of them stated that they had problems due to the lack of observation opportunities for the prospective teachers in administrative affairs. In addition, candidate physical education teachers participating in the study stated that 10.9% of them had problems due to insufficient support from the consultant teacher, and 10.9% of the candidate teacher's workforce density. In addition, some of the candidate physical education teachers who participated in the study stated that 8.2% of the administration showed a harsh attitude towards the prospective teacher, and 5.4% of them could not communicate with other teachers. It was observed that the participants expressed more than one opinion.

Table 5. The distribution of the opinions of the candidate physical education teachers on the problems they encountered in in-service training programs.

Themes	N	%
The people who give the seminar are not experts in their field	14	25.5
The seminar is not qualified	12	21.8
Long duration	11	20
I did not have any problems	7	12.7
Seminar lecturers not taking their job seriously	6	10.9
Inability of the people giving the seminar to use the technology sufficiently	5	9.1
Total	55	100

In Table 5, when the problems encountered by the candidate physical education teachers participating in the study in the in-service training programs are examined, 25.5% stated that the people who gave the seminar were not experts in their field, 21.8% stated that the seminar was not qualified and 20% stated that the seminar was long. In addition, prospective physical education teachers; 12.7% of them stated that they did not have any problem, 10.9% of the people who gave the seminar did not take their job seriously, and 9.1% stated that the people who gave the seminar could not use the technology sufficiently. It was observed that the participants expressed more than one opinion.

Table 6. Distribution of prospective physical education teachers' opinions about the exams held at the end of the candidacy process.

Themes	N	%
Must have a field exam	14	28
Tiring and tedious application	9	18
An app that causes stress and anxiety	8	16
An on site and must have application	7	14
An application with very difficult questions	5	10
An application that should be more flexible	5	10
An unnecessary application	2	4
Total	50	100

In Table 6, when the opinions of the candidate physical education teachers participating in the study about the exams held at the end of the candidacy process are examined, the majority stated that 28% field exam should be done. In addition, the candidate physical education teachers participating in the research, the exam held; 18% stated that it was a tiring and boring application, 16% was an application that created stress and anxiety, 14% stated that it was an appropriate application and should be done, 10% stated that it was an application that was very difficult with questions, 10% was an application that should be flexible. Only 2 participants stated that it was an unnecessary practice. It was observed that the participants expressed more than one opinion.

Table 7. Distribution of the opinions of the candidate physical education teachers regarding their suggestions regarding the process.

Themes	N	%
Prospective teachers should be valued	16	13.4
Physical environmental conditions should be improved	15	12.4

The lack of equipment should be eliminated	15	12.4
Classroom should be given to prospective teachers	14	11.5
Administration-consultant-candidate teacher must be in harmony	14	11.5
In-service training seminars should be of high quality and qualified	12	9.9
The prospective teacher should be guided in the execution of administrative affairs	12	9.9
In-service training seminars should be given by academicians or experts in their field	12	9.9
Paperwork should be less	11	9.1
Total	121	100

In Table 7, when the suggestions of the candidate physical education teachers participating in the study regarding the process are examined, 13.4% stated that the candidate teachers should be valued, 12.4% stated that the physical environmental conditions should be corrected, and 12.4% stated that the lack of equipment should be eliminated. In addition, when we look at the suggestions of the candidate physical education teachers regarding the candidacy process; The themes of giving classes to prospective teachers, matching administration-counselor-candidate teacher, quality and qualified in-service training seminars, guiding the candidate teachers in performing administrative work, giving in-service training seminars by academicians or experts in the field, and less paperwork. It has been seen to come to the fore. It was observed that the participants expressed more than one opinion.

DISCUSSION, CONCLUSION And SUGGESTIONS

In this part of the study, the results obtained based on the findings obtained with the aim of evaluating the opinions of physical education teachers regarding the problems encountered in the process of training prospective teachers and the solution suggestions are included.

When the opinions of the candidate physical education teachers participating in the study on the candidacy process were examined, 24.4% of them stated that it was a positive practice. In addition, regarding the candidacy process of physical education teachers participating in the research; They stated that it was a tiring and inefficient practice and that it was a negative practice. In addition, some of the prospective physical education teachers regarding the candidacy process; They stated that they learned something about administrative affairs, that it was an unfair practice and that it was partly a positive practice. From this point of view, we can say that candidate physical education teachers find the candidacy process positively and learn something administratively. At the same time, it can

be stated that the prospective teaching process is tiring and boring. Ulubey (2018) concluded in the study that he examined the prospective teacher training program according to the opinions of the prospective teachers, the prospective teachers found the program generally positive. In different studies related to the research, the majority of prospective teachers; It was observed that they received support from the school administration and the advisor teacher in in-school and classroom activities, and they also found the candidacy education process positive in terms of professional preparation and professional development (Akyıldız, Altun and Kasım, 2020; Çakmak, Kaçar and Arıkan, 2018; Altıntaş and Görgen, 2018; Gül, Türkmen and Aksel, 2017; Tunçbilek and Tünay, 2017, Gökkulu, 2016).

In similar studies conducted abroad on the subject, it was stated that teacher practices of candidate education programs have a positive effect on teachers' experiences (Mingo, 2012; Ingersoll & Strong, 2011; Thompson, Paek, Goe, & Ponte, 2005). On the other hand, in the study of Sarıca and Turan-Özpolat (2016), it was revealed that prospective teachers had more negative opinions about the prospective teacher training program. In addition, Köse (2016) stated in her study that although the prospective teachers had a successful undergraduate education, the process was inadequate to gain experience to the prospective teacher. In this case, although there are many positive aspects of the prospective teacher training program, it can be said that there are various problems and deficiencies in practice.

Examining the problems encountered by the candidate physical education teachers participating in the study, 29.7% stated that they had problems in classroom management and 29.1% in communicating with the student. It was revealed that some of the candidate physical education teachers participating in the study had problems due to the students' indifference to the course and the prospective teacher being passive in the classroom. In line with the opinions expressed by the candidate physical education teachers, we can say that they have problems in classroom management and gaining control over the student since they are not very together with the student. In Yılmaz (2017) study, prospective teachers in classroom practices; Inability to interact with the student sufficiently, constantly attending classes in different classes, the advisor teacher seeing the prospective teacher as a facilitator, students not seeing the prospective teacher as a teacher, and the prospective teacher being in a passive position in the classroom. In their study, Balkar and Şahin (2015) found that participating school administrators and prospective teachers need help with classroom management and good communication skills. In addition, in the researches; Athanases and Achinstein (2003) stated that they had problems in creating effective learning opportunities, Özer

(2013), Avalos and Aylwin (2007) classroom management, Korkmaz and Akbaşlı (2004) communicating effectively with students.

When examining the opinions of the candidate physical education teachers participating in the study about the problems they encountered in the in-school studies, it is seen that most of them have problems due to the administrator and consultant teachers not having sufficient knowledge about the process, insufficient physical and environmental conditions, and lack of equipment. In addition, the candidate physical education teachers participating in the research in the school; It was stated that they had problems due to the fact that the prospective teachers were not given enough observation opportunities in administrative affairs, the support from the advisors was not enough, and the workforce of the prospective teacher was intense. In addition, the candidate physical education teachers participating in the study in the school; They stated that they had problems due to the fact that the school administration showed a harsh attitude towards the prospective teacher and could not establish a healthy communication with the other teachers in the school. From this point of view, it can be said that both school administrators and advisor teachers do not have enough information about the prospective teacher training process. Especially due to the administrative and paperwork of prospective teachers who have just started to work, school We can state that they have problems with the administration. Teachers who are new to the profession, learning the functioning of the school, getting to know the school culture (Sezgin, 2005), not knowing how to increase the motivation of students in school affairs (ceremony, celebration, meeting, etc.) (Sarı and Altun, 2015), difficulty in preparing official documents, reports and correspondence It is observed that they are faced with problems such as (Öztürk, 2016). In addition, the biggest problem faced by all physical education teachers in the places where they work today is the physical environment conditions and the lack of equipment. For this reason, we can say that the research group expressed their views. While Kozikoğlu and Soyalp (2016) stated in their study that the advisors did not have sufficient knowledge about the program, Köse's (2016) research findings concluded that there are deficiencies in informing on the basis of the problems encountered during the implementation process of the program. Akyıldız, Altun, and Kasım (2020) stated in their study that prospective teachers should have their own classes, since the forms filled in are too many, the lack of information in the people involved in the implementation process should be eliminated. Yılmaz (2017) stated that administrators do not have a plan and program regarding the process of training candidate teachers, the administrators' harsh attitudes towards prospective teachers and teachers are not given the opportunity to observe. In the study of

Ekinci, Bozan, and Sakız (2019), Altıntaş and Görgen (2018), prospective teachers, counselor teachers or school administrators were not informed enough about the program, the prospective teachers did not spend the first six months of their candidacy education at the schools they were appointed, and although they were good in theory, there were problems in practice. They mentioned the negative aspects of the training program.

In a study conducted by Çakmak, Kaçar, and Arıkan (2018) in different studies, it was found that prospective teachers were tired of filling out too many documents and forms. Similarly, Kılıç, Babayiğit, and Erkuş (2016) reached the conclusion in their study that the document load was too high. According to a comprehensive study conducted by the Political, Economic and Social Research Foundation (SETA), more than half of the teachers found candidacy training positive in terms of vocational preparation and professional development, but complained that the forms they had to fill were too many (Bozak, Yıldırım and Demirtaş, 2011; İlyas, Coşkun and Toklucu, 2017; Topsakal and Duysak, 2017). In the studies of Yıkılmaz and Turak (2018), Yıkılmaz, (2018), Alıncak, Doğan and Abakay (2016), the most common problems faced by physical education teachers; They stated that physical environmental conditions are insufficient and equipment.

When we look at the problems encountered by the candidate physical education teachers participating in the study in in-service training programs, the majority; They stated that they had problems due to the fact that the people who gave the seminar were not experts in their field, the seminar was not qualified and the duration of the seminars was long. In addition, some of the prospective physical education teachers in in-service training programs; While some of them stated that they did not have any problems; They stated that the people who gave the seminar did not take their job seriously and that the people who gave the seminar could not use the technology sufficiently. Therefore, we can say that prospective physical education teachers experience problems from time to time in in-service training programs. In Yılmaz (2017) study, in in-service training programs; They stated that they had problems due to the fact that people who do not have competence on the subject give it, the duration of the seminar is long, the people who provide in-service training do not take their job seriously. Işık, Çiltaş, and Baş (2010) stated in their study that especially the in-service training policies of the Ministry of National Education should be reviewed and restructured and that in-service training programs could not be carried out fully in our country. Alıncak and Öztürk (2018) stated in their study that the in-service training program was not done sufficiently, it was not carried out in accordance with its purpose, the program should be done more regularly, the training should be given by

experts in the field and that in-service training programs should be more efficient.

When the opinions of the candidate physical education teachers participating in the study about the exams held at the end of the candidacy process were examined, most of them stated that the field exam was required. In addition, the research group made the exam; They stated that it is tiring and boring, it is an anxious practice, it is an appropriate application that needs to be done, it is an application whose questions are quite difficult and the exam should be more flexible. Based on these considerations, it can be stated that in general, prospective physical education teachers want the exam to be conducted in their own field. Although some prospective teachers find the exam positive, we can say that some of them are uncomfortable with the exam in the candidacy process. In his study, Yılmaz (2017) concluded that the exam at the end of the prospective teaching process should be done objectively and the exam caused anxiety and stress in prospective teachers.

When we look at the suggestions of the research group regarding the prospective teaching process, the majority; 13.4% stated that prospective teachers should be valued. In addition, candidate physical education teachers participating in the research; 12.4% of them stated that the physical environmental conditions should be corrected and the lack of equipment should be eliminated. Besides, the research group; Classes should be given to prospective teachers, administration-counselor-candidate teacher compatibility, quality and qualified in-service training seminars, guidance to candidate teachers in administrative work, in-service training seminars should be given by academicians or experts in the field, and paperwork should be less. They made suggestions. Based on the recommendations of the research group, we can state that teachers should be valued and important during the candidacy process. In addition, due to the branches of physical education teachers; It can be said that physical environmental conditions should be improved and the lack of equipment should be eliminated. Yılmaz (2017) stated in his study that prospective teachers should assume a more active role in the classroom, while experts in their field should lecture in in-service training programs, the duration of the seminar should be kept out of monotony and those who took part in the course should take their work seriously. There is a mentoring practice for prospective teachers who are new to the profession in the world. Documents are also given in mentoring courses in some institutions that train teachers in the United States and England (Botha, 2012). There are differences in the competencies (Evans, 2008) and choices of mentors. All of the institutions that train teachers in Norway offer mentoring training (Kroksmark and Aberg, 2007). In California, mentors are nominated by

a selection committee nominated by teachers from amongst themselves. Knowledgeable, self-sacrificing, experienced, willing, open to new ideas, able to speak well, reliable, competent, guiding, sensitive teachers are chosen among teachers (Sampson and Yeoman, 1994).

As a result, it was stated that prospective physical education teachers generally found the candidacy process positive, even though it was boring and tiring. Prospective physical education teachers stated that they had problems due to classroom management, communication with the student, students' indifference towards the lesson, and the prospective teacher being passive in the classroom. In the research group in-school practices; They stated that the administrator and counselor teachers did not have enough information about the candidacy process, the physical environment conditions were insufficient, and they experienced a lack of equipment and equipment in the lessons. In addition, the candidate physical education teachers who participated in the study stated that in-service training programs should be more qualified and the people who gave the seminar should be experts in their field. In addition, it was concluded that the exam at the end of the nomination process of the research group caused anxiety and stress, but it was an appropriate and necessary practice due to its contribution in the process of adapting to the profession.

Suggestions

In order to ensure the adaptation of the candidate teachers to the physical, social and cultural environment, the candidate education should start in the province or school where the candidate teachers are appointed.

Candidate teachers can be given a class in the company of a counselor so that they can improve themselves.

The process of training candidate teachers should be carried out in a more planned and programmed manner, and both the school administration and the advisor teacher should be informed in detail about the process.

The paperwork of prospective teachers should be stretched slightly.

In-service training programs should be of higher quality and quality.

In-service training programs should be prepared according to the needs and expectations of teachers.

Support should be obtained from higher education institutions in in-service training seminars.

The positive and negative aspects of the prospective teacher training process can be revealed and an effective prospective teacher training model can be developed.

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Chapter 8

ROOT VALUES OF ELEMENTARY SCHOOL SECOND GRADE TURKISH STUDY BOOKS

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Root Values of Elementary School Second Grade Turkish Study Books

Introduction

In Turkish language teaching, there are visual and written tools and materials that support students' learning. Text and study books are the priority ones of these tools and materials. Text and student study books are essential tools for teaching Turkish. A quality textbook also requires a study book prepared for this purpose (Şahin & Şahin, 2009, p.326). The knowledge and skills presented in Turkish textbooks are reinforced with study books.

On the preparation of study books, necessary steps have been taken in the Ministry of National Education's 2023 Education Vision (MEB, 2018, p.86-87) document. The primary goal of the basic education section of this document is that primary and secondary schools will be restructured in terms of development. One of the activities carried out in order to realize the activities of making the arrangements for meeting the need for auxiliary resources significantly for this goal is, the preparation of study books and delivery to students.

In the Textbooks and Education Tools Regulation (2012), the student's study book has been defined as a set making it easy to learn the lessons in the direction of the gains and explanations found in educational programs, including internet addresses, reading materials and other activities related to various examples, exercises and units that will support students, of which the pages can be used separately, with the work in printed / PDF form, supporting the units visually and audibly including electronic recording devices.

According to this definition, elementary school second-grade Turkish study book can be defined as a set facilitating the learning of Turkish lesson in the direction of the gains in the Turkish curriculum, including reading materials and activities related to various examples, exercises and themes to support students, of which the pages can be used in different ways, in print / PDF publication, supporting themes in various ways, consisting of electronic recording devices.

In the Turkish Course Curriculum, there are some special purposes such as development of basic language skills, to use it carefully in accordance with the speaking and writing rules of Turkish, enriching the vocabulary based on what he/she reads and listens, development of emotions, thoughts and imaginations, to acquire a love and habit of reading and writing, expressing their thoughts effectively and clearly in oral and written form, ensuring that they give importance to national,

historical, spiritual, moral, cultural and social values and, growth of national feelings and thoughts (MEB, 2019, p.8). As can be understood from these special purposes, in Turkish teaching, besides basic language skills, the necessary importance is given to value education. Because of this importance, values and values education are included in study books as well as in Turkish textbooks.

In the field literature, value has been defined in various ways. Value is defined as the abstract measure, value and virtue that determines the importance of something, material and moral elements that include the social, cultural, economic and scientific values of a nation (TDK, 2021), beliefs and rules that guide our behavior and attitudes, the principles and standards that reveal the correctness, beauty and morality of our actions (Hökelekli, 2010, p. 4), a measure that guides our beliefs and attitudes about appropriate behavior patterns or life goals (Aydın, 2010, p.16). Values are concepts that serve to explain what is important for individuals who make up the society and how to behave in what situation (Topal, 2019, p.248).

Ten root values are included in the curricula such as justice, friendship, honesty, self-control, patience, respect, love, responsibility, patriotism and benevolence (MEB, 2019, p.4). Values can be taught in schools by systematically addressing the root values. Success in value teaching can be achieved by including values in curricula and including and planning them in lesson activities (Akbaş, 2004). According to Uyanık (2010, p.42), education is all social processes that have an impact on the individual and society in acquiring certain dimensions, beliefs and ways of survival and, social values and how to teach and educate these values should be investigated.

The education system does not only gain certain knowledge, skills and behaviors that are academically successful and determined. Its main task is to raise individuals who have absorbed basic values (MEB, 2019, p.4). Values education is given importance in the field of education. Researches are carried out on how to explain values to children. Education programs on love, honesty, respect, sharing, cooperation, avoidance of violence, etc. have started to be prepared. The goal of these programs is to bring children together with values at an early age, and to make them think about values by making use of fairy tales, stories and group activities (Aydın, 2010, p. 17).

Informative texts such as memoirs, diaries, news texts, postcards, guides and quotations as text types for the second grade of elementary school in the Turkish curriculum, as well as narrative texts and types of poetry such as chansonnette, lullaby, song, folk song, poem and rhyme,

numeracy and riddle are included as comic book, falb, story, tale, humor, anecdote and theater (MEB, 2019, p.17). Considering the importance of gaining values with the text types in Turkish study books, the importance of whether the texts in Turkish study books contain the root values or not and to what extent they emphasize the values becomes evident. Because of this importance, in the study, it was aimed to value analysis of texts in elementary school second grade Turkish study books.

When the researches about values in elementary school Turkish text and study books in our country are examined, studies involving values and values in Turkish textbooks (Buyer, 2019; Eken & Öksüz, 2019; Kasa Ayten & Gültekin, 2019; Kaşkaya & Duran, 2017; Külünkoğlu, 2010; Soylu, 2019; Susar Kırmızı, 2014; Şahin, 2015; Yılar, 2016) seems to be limited. No research has been found on the values in elementary school Turkish study books. However, considering that Turkish study books facilitate Turkish teaching alongside textbooks and support the knowledge, skills and values in Turkish lessons with examples and exercises, the necessity of a research on the analysis of the values in the study books is obvious. In this respect, the study was conducted to analyze the values in elementary school second grade Turkish study books. For this purpose, it was examined to what extent elementary school second grade Turkish study books included the root values in the curriculum.

Method

As a method, this research which is analyzed in terms of the analysis of values in elementary school second grade Turkish study books, is a qualitative research. The obtained data were obtained by document analysis method. Document analysis is an analysis application that collects existing records and documents related to the research and encodes them according to agreed norms. This method has also been defined as documentary observation and documentary scanning (Çepni, 2012, p.116). Document analysis consists of five stages such as obtaining documents, accessing documents, checking the authenticity, interpreting the documents, analyzing the data and using the data (Forster, 1995; cited Yıldırım & Şimşek, 2011, p. 193).

The sample of the research was determined using the purposeful sampling technique. In this sampling technique, the main goal of the researcher is to select a sample that will reflect the general population. The researcher may find it appropriate to determine a sample with average level characteristics that are important for the research (Özen & Gül, 2007, p. 414). The universe of the study consists of elementary school Turkish study books, and the sample consists of elementary school second grade Turkish study books. The data of the study were obtained from

elementary school second grade Turkish study books presented as PDF on the Education Information Network (EBA) (www.eba.gov.tr) platform. There are two study books in EBA as elementary school second grade Turkish study books. In the study, second grade Turkish study books were numbered as "Elementary School Second Grade Turkish study book 1" and "Elementary School Second Grade Turkish Study book 2" and were analyzed in terms of values.

The data in the study were collected by taking into account the root values in the Turkish Course Teaching Program (MEB, 2019, p. 4). Values were determined in the texts in the second grade Turkish study book of elementary school. Content analysis was used while analyzing the obtained data. According to Yıldırım and Şimşek (2011, p. 227), this analysis method is to collect similar data in the field of defined concepts and themes, and to organize and interpret these data in a way that the reader can absorb.

In order to ensure the validity of the study, the literature was searched and the results of the research were discussed. In the analysis of elementary school second grade Turkish study books in terms of values, different researchers made separate analyzes. The analysis results of the researchers were compared with the formula of Miles and Huberman (2015, p. 64) Reliability = number of consensus / (total consensus + number of disagreement). According to the formula, the reliability coefficient of the results was determined as 93%. It can be said that the analysis is done as desired, since it is accepted that there should be a reliability coefficient of 80% in the reliability calculations while 90% and above is the desired reliability coefficient.

Findings

In this section, the distribution of values in the elementary school second grade Turkish study books examined within the scope of the research, based on themes, is given in the tables. Sample sentences related to the transfer of root values are given in the themes.

Table 1 shows the numerical ratio of the values in the elementary school second grade Turkish study book 1.

Table 1: *Root Values of Elementary School Second Grade Turkish Study Book 1*

Values	Themes								T	%
	Children's World	National Struggle and Atatürk	Virtues	Our National Culture	Earth and the Universe	Health and Sports	Citizenship Awareness	Science and Technology		
Justice	-	-	1	4	-	-	-	-	**5**	**5,05**
Friendship	-	-	1	3	-	1	-	-	**5**	**5,05**
Honesty	-	-	-	1	-	-	-	1	**2**	**2,02**
Self Control	1	-	1	2	-	1	1	1	**7**	**7,07**
Patience	-	-	1	1	1	2	1	-	**6**	**6,06**
Respect	-	4	2	1	-	-	-	1	**8**	**8,08**
Love	1	6	5	9	2	3	2	-	**28**	**28,28**
Responsibility	-	2	2	3	-	1	5	-	**13**	**13,13**
Patriotism	-	2	-	8	-	-	-	-	**10**	**10,10**
Helpfulness	-	3	1	1	2	1	4	3	**15**	**15,15**
Total	**2**	**17**	**14**	**33**	**5**	**9**	**13**	**6**	**99**	**100**
%	**2,02**	**17,17**	**14,14**	**33,33**	**5,05**	**9,09**	**13,13**	**6,06**	**100**	

According to Table 1, which contains information about the elementary school second grade Turkish study book 1, the most root values were determined to be processed in themes as love (28.28%), benevolence (15.15%) and responsibility (13.13%), at least are honesty (2.02%), justice (5.05%) and friendship (5.05%). The themes with root values, the highest number of them is our National Culture (33.33%), National Struggle and Atatürk (17.07%) and Virtues (14.14%), and at least are Children's World (2.02%), World and Universe. It can be seen from the table that the themes (5.05%) and Science and Technology (6.06%) contain values. 99 root values are included in a total of eight themes.

The following can be given as an example of the values in the texts in the themes in the second grade Turkish study book 1 of the elementary school.

The sentence "They worked hard and deserved it" (p. 56) refers to justice,

"Years have passed, but what Kerem has done is still in my mind." (p.57) refers to friendship;

Elif said "It turns out how useful the wind was." (p. 117) refers to honesty; One of the students raised his/her finger. After getting the right to speak: "(p. 56) refers to self-control;

He thought "I can live in these books until I find a child to make a nice wish from me?" (p.40) refers to patience;

"Atatürk and the notables of the Republic of Turkey welcomed Edward the 8 at the dock." (p. 22) refers to respect;

"Give your hands my mother, Let me kiss and put to my heart as much as I desire ..." (p. 36) refers to love;

"That's why he founded many educational institutions so that they become successful people." (p. 31) refers to responsibility;

Atatürk said: "Your Excellency, do not be afraid of microbes. Our land is enoughclean." (p. 22) refers to patriotism;

"Your son will help, we will help." (p.52) refers to helpfulness.

Table 2 shows the numerical ratio of the values in the Elementary School Second Grade Turkish Study book 2.

Values	Themes								T	%
	Individual and Society	National Struggle and Atatürk	Health and Sports	Virtues	Science and Technology	Children's World	Our National Culture	Earth and the Universe		
Justice	1	-	-	-	-	1	1	-	**3**	**4,41**
Friendship	1	-	1	1	1	3	2	2	**11**	**16,17**
Honesty	1	-	1	1	-	-	-	-	**3**	**4,41**
Self Control	-	1	2	-	-	-	-	-	**3**	**4,41**
Patience	1	1	-	-	-	-	-	-	**2**	**2,94**
Respect	1	3	1	1	1	2	1	-	**10**	**14,70**
Love	1	4	3	1	1	4	4	2	**20**	**29,41**
Responsibility	1	3	2	-	-	2	1	1	**10**	**14,70**
Patriotism	-	2	-	-	-	-	-	-	**2**	**2,94**
Helpfulness	1	1	1	-	-	-	-	1	**4**	**5,88**
Total	**8**	**15**	**11**	**4**	**3**	**12**	**9**	**6**	**68**	
%	**11,76**	**22,05**	**16,17**	**5,88**	**4,41**	**17,64**	**13,23**	**8,82**		

When Table 2 is examined, among the root values, love (29.41%), friendship (16.17%), responsibility (14.70%) and respect (14.70%) were given the most, but patience (2, 94)%), patriotism (2.94%), justice (4.41%), honesty (4.41%) and self-control (4.41%) values are given in themes as the least. Among the themes with root values, the most, the National Struggle and Atatürk (22.05%), the children's world (17.64%) and Health and Sports (16.17%), and as the least, Science and Technology (4.41%) and Virtues (5.88%) themes were given as values. There are 68 root values in a total of eight themes in the studied study book.

The examples in the texts in the themes in the study book within the scope of the research are as follows:

"He always wins the game with his baskets" (p. 13) refers to justice;

"Emine played in the park with her friends that day." (p. 52) refers to friendship;

"I tell everyone the truth, I collect honesty in my pockets…" (p. 65) refers to honesty;

"He gets up early in the morning, makes the bed, washes his/her hands and face." (p. 42) refers to self-control;

"I got to know him/her better over time." (p. 13) refers to patience;

"It is up to your discretion my teacher "(p. 29) refers to respect;

"always a Love shines in his look" (p. 13) refers to love;

"It was decided which dishes will be cooked by whom on that day." (p. 145) refers to responsibility;

"The most beautiful of the countries is my dream-like paradise homeland." (p.35) refers to patriotism and

"I help him/her in everything" (p. 13) refers to helpfulness

Conclusion, Discussion and Suggestions

Throughout the Elementary School Second Grade Turkish Study book 1, most of the root values are love, helpfulness and responsibility, and as least, the values of honesty, justice and friendship are covered. The values of love, friendship, responsibility and respect are given the most in Elementary School Second Grade Turkish 2 Study book 2. Patience, patriotism, justice, honesty and self-control values are the least included in the Elementary School Second Grade Turkish Study book 2.

In the examined elementary school second grade Turkish study books, the value of love was mostly written. In previous years studies on values in primary school Turkish textbooks, (Alı, 2019; Eken & Öksüz, 2019; Kaşkaya & Duran, 2017; Külünkoğlı, 2010; Soylu, 2019; Susar Kırmızı, 2014; Yılar, 2016), as the maximum it has been determined that the value of love takes place. These findings support the result of the current research.

Love is the feeling that drives people to show close interest and devotion towards something or a person (TDK, 2021). Love is the behavior and practice of being a human and living a human life (Sönmez, 1997, p.48). The inclusion and processing of the value of love in Turkish study books in the first years of basic education can enable students to better understand this value from an early age and demonstrate this value in their lives.

In the second grade Turkish study books of elementary school within the scope of the study, responsibility value is among the values that have the most place after love value. Eken and Öksüz (2019) determined in their research that responsibility value is the most involved in the first grade Turkish textbook of primary school and according to Alıcı (2019) it is in the sixth theme of the second grade Turkish textbook. Responsibility is undertaking the actions of the person or the consequences of an event within his/her jurisdiction (TDK, 2021). Responsibility is to have the capacity to do what a person does with full consciousness and freedom. It is a conscientious duty to take on the results and developments that he/she is responsible for psychologically (Cevizci, 1999, p. 786). Through the texts in Turkish study books, students gain the value of responsibility from an early age, and students can take responsibility for their thinking in society, both in their lifelong learning and in their lives, and contribute to society as responsible individuals.

In addition to these values, helpfulness values in elementary School Second Grade Turkish study book 1, and friendship and respect values in Elementary School Second Grade Turkish study book 2 are frequently discussed values. In the research of Eken and Öksüz (2019) which supports this finding, it was determined that the value of friendship in the second grade Turkish textbook of the elementary school and the value of helpfulness in the third and fourth grade Turkish textbooks is one of the values that are frequently processed. According to the Turkish Language Association's Current Turkish Dictionary (2021), helpfulness is a state of love for helping those in need, friendship is "being friendly, friendly behavior" and respect is love and reverence that causes an individual and something to act deliberately and thoughtfully. Modeling how these values can be acquired with texts in Turkish study books can support students to be helpful towards their environment, to be friendly to their environment, and to respect individuals in the society.

The least processed values are honesty, justice and friendship in Elementary School Second Grade Turkish study book 1, and in Elementary School Second Grade Turkish study book 2 these are patience, patriotism, justice, honesty and self-control values. In the research of Eken and Öksüz (2019) which is one of the studies that overlap with this finding, values of justice and honesty are among the least mentioned values in elementary school Turkish textbooks. One of the features of the texts to be included in the textbooks in the Turkish Education Program (2019, p.18) is to benefit from the authors and studies adopted in the field, and from the texts that have literary and cultural value features. From this point of view, selecting texts that include root values and have literary and cultural values in Turkish textbooks and study books can enable students

to recognize and realize the root values with the texts in the study books and carry these values throughout their lives.

As the root values included in the themes, in Elementary School Second Grade Turkish study book 1, the themes of our National Culture, National Struggle and Atatürk and Virtues are the most, while the Children's World, Earth and Universe, Science and Technology themes contain the least values. The most of the themes in the Elementary School Second Grade Turkish study book 2 are the National Struggle and Atatürk, Children's World and Health and Sports, and the least one is the themes of Science and Technology and Virtues values. One of the interesting results of the study is that the theme of "National Struggle and Atatürk" contains the highest value in both second grade Turkish study books. Turkish lessons, one of the most important lessons, help support interpersonal communication skills and socialization. It has another importance in the continuation of Turkish culture and social existence. It has a great impact on the transmission of universal and national values to new generations through education (Susar Kırmızı, 2014, p.221).

The goals of the training are ensuring peace and happiness of people, acquiring values such as love, cooperation and balance, and ensuring the continuity of such cultural values in all respects (Sönmez, 2002, p. 94). Undoubtedly, it is possible for education to achieve this goal by including texts with qualitative value features into Turkish text and study books and by introducing these texts to students from the first years of basic education.

Based on the results of the research, the following suggestions can be made:

✓ Attention can be paid to include root values in elementary school Turkish study books in a balanced way.

✓ Care can be taken to include texts that include all root values as well as certain root values in elementary school Turkish study books.

✓ Attention can be paid to the fact that root values are included in the themes in elementary school Turkish study books in a balanced way.

✓ Studies can be conducted on whether or not root values are included in elementary school Turkish study books at different grade levels.

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Chapter 9

PROVERB AND IDIOM TEACHING THROUGH STORIES[1]

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1 This study is derived from the PhD Thesis titled, "Comparison of Film and Story Techniques, in Terms of Efficiency Levels in Teaching Turkish Proverbs and Idioms as a Foreign Language".

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1. INTRODUCTION

Anything expressed by a nation by way of a language, whether verbally or in writing, fits into the concept of culture. People, by talking at home, in the streets, at the markets or workplaces all day long from early in the morning until later in the day, add something in the land of language, even without realizing it (Kaplan, 2001: 139). Language teaching is a concept that is identified with the cultural teaching. Because, the language is the transmitter and reflector of a culture. The products that best reflect the culture are the genres such as the folk tales, myths/ fables and anecdotes produced by the people who maintain that culture. The use of these genres in language teaching can increase the cultural awareness of the target language (Akkaya, 2013: 171). Culture is one of the most important treasures that is nourished by literature. Also, the literary products are major instruments that act as a means of promoting and adopting the culture. A literary text is enriched by the cultural motives inside and allows the values of the culture, to which it belongs, to reach the large masses, as well (Gocer, 2012: 56).

It should be regarded as one of our language teaching objectives to promote the cultural environment to which our language belong, by making use of the folkloric materials in teaching the foreigners the Turkish language. In fact, the principle of including the cultural values in the foreign language education is considered one of the three basic arguments constituting the basis of European Language Portfolio (Ozdemir, 2013: 158). Comprehending the various activities created in everyday life by the individuals who make up a community requires an understanding of the basic points specific to that community. The purpose in learning a foreign language is to be able to better understand and speak that language by gaining the cultural proficiencies. To do that, it is crucial to understand and perceive where, when, why, by whom and in which environment the words of that language are used (Demir and Acik, 2011: 55).

To that end, some texts selected from the literary genres, such as stories, tales, anecdotes/jokes, poems, epics, can be applied in order to improve the reading skills of the students who learn Turkish as a foreign language. While simple texts or dialogues, which contain basic vocabulary suitable to the student's level, are preferred in the basic levels, a collection of various literary genres is selected in advanced levels. "Language teaching in the beginner, namely A1 – A1 levels, is a level at which the basic language requirements are identified and offered. Therefore, this level should mainly focus on some activities that will satisfy the primary needs of the individual in that language. Whereas the intermediate and advanced levels are the most appropriate ones to offer the texts blended with the cultural elements for the students whose basic requirements have

been satisfied. Intermediate and advanced levels should include an aspect which reveals the culture of our country and the way how the people of our country interpret the world. At this point, literary works can be used as a rich resource" (Kalfa, 2013: 169).

Literary texts have a strong effect on the development of mental and linguistic skills, axiology, motivation, improvement of imagination and creativity as well as the socialization of the individuals (Ayhan and Arslan, 2014: 543). A fascinating story in the literary text arouses interest in the reader and causes them to ask "what will happen?", therefore enabling the student to read more carefully, which increases the level of availability to learning. Another important feature of the literary texts is that they have a higher level of quality compared to the popular ones and better reflect the characteristics of the language. Literary texts are much more successful when compared to the hastily written texts, in terms of reflecting the characteristics of the language, thanks to the meticulous sentence structures and selection of words (Arak, 2013, 95-96). One of the reasons, among others, which makes the literary works so important is that the literary work is the only inartificial and natural tool of that language, which can be used by an individual who learns a language in an artificial environment, considering the fact that a number of foreign language students do not get the opportunity to go to the country, the language of which he/she is learning and to study the language in a natural environment (Tarcan, 2004: 52). We can see the reflection of the living world of that language in the literary texts. Foreign language student who understands this reflection can use the foreign language more efficiently in everyday life (Kalfa, 2013: 171). Since the literary texts offer samples in vocabulary learning, the meaning of the word is understood more easily and thus permanent learning is achieved (Ozbay and Melanlioglu, 2008: 51). Same thing applies to the proverb and idiom teaching, as well. The student is not likely to forget the idiom and proverb, the usage of which he/she sees in a story text and makes a sense of it, therefore memorability will be achieved in the integrity of the subject. "The narratives, such as folktales, fables, myths and anecdotes, are highly useful materials to be used in teaching Turkish language to foreigners. Yet, finding the proper texts in this respect is serious problem in store for the professionals in the field" (Ozdemir, 2013: 161). The texts should be suitable for the level of students. In addition, "The texts that are simple and clear in terms of language and style should be preferred. Any text that contains elaborated language and style affects foreign language learning negatively. The fact that the text should be interesting and fascinating for the reader is another point to consider (Kasimova, 2010: 579).

The study aims to explain the meaning of the proverbs and idioms by making use of various literary genres and teaches the proverbs and idioms through stories, including the fables and anecdotes, as well. The term "story" is used in a way to include all sorts of literary genres. Special attention is paid to whether the texts chosen are suitable for proverb and idiom teaching or not, rather than their genre. While some proverbs and idioms are explained through the anecdotes of Nasreddin Hodja, some are narrated to the student by means of short stories or fables. The selected short texts, , consist of the vocabulary that the student is familiar with and suitable for the level. . "Since the anecdotes that are some sort of literary texts are quite short, they are highly preferable in teaching the foreigners Turkish language. The students who discover such short texts based on various challenging and funny human affairs feels as if they get the reward of all mental efforts they exert in an effort to comprehend the text, when they understand the humorous phrase usually narrated at the end of such anecdotes" (Ozdemir, 2013: 161). The use of Nasreddin Hodja anecdotes in teaching the foreigners Turkish language enhances the student's desire to learn and contributes significantly to the learner in terms of pronunciation and vocabulary (Barin, 2008: 63). The students get to learn the family structure and neighbourhood relations of Turkish nation, by reading or listening to such anecdotes. They also apprehend the religious beliefs of Turkish people (Teksan, 2012: 275). A great number of idioms used today have since been related to Nasreddin Hodja, his anecdotes as well as the anecdotes narrated in his name. In fact, we use, hear and read most them in our everyday lives (Tokmakcioglu, 1981: 41). Managing to teach the foreign language learners primarily the phrases they need, without boring them, is crucial in order to motivate the student and thus make the lesson enjoyable. The elements, which make the lesson enjoyable, are the activities performed in the classroom environment and the animation technique by dramatizing the situations encountered by the student in everyday life. The stories (anecdotes) of Nasreddin Hodja are just perfectly suited to this practice (Barin, 2008: 61). Also the fables, a type of story whose characters are mostly chosen from the animals, aiming for teaching a lesson in the end, are the short stories (www.tdk.gov.tr, 2015) suitable for use in the courses. Proverb and idiom teaching through brief, concise and meaningful texts facilitate the teaching, making the lesson more attractive and increasing the memorability. The students gets the opportunity to discover the meaning in the integrity of the subject, thanks to such stories. Their skills to read and interpret on what they read develop. In addition, the stories bearing the cultural aspects attract the attention of the students, helping to increase their motivations. They are able to compare them with their own cultures and explore the common points and diversities.

2. METHODOLOGY

2.1. Research Design

The research in designed in an experimental pattern. An experimental pattern with pre-test, post-test experiment-control groups are used in this study. Experimental patterns are research patterns used to identify the cause-effect relations between variables (Buyukozturk 2007: 19). An experimental pattern is usually based on two groups such as experiment and control groups. The experiment group goes through some specified training and later this is evaluated. On the other hand, the control group continues with their regular training. At the end of the experimental pattern, the variation of success rates in the experiment group before and after the training is statistically compared with that of the control group. Also, the pre-test and post-test success variations between the groups are statistically evaluated. The effect of the training program implemented is found out based on the findings obtained. The fact that the success variation in the experiment group is higher than that of the control group points out that the training program implemented has turned out successful. Experimental pattern is employed in this part of the research, with a view to teaching proverbs and idioms through stories.

2.2. Participants

The research data were obtained from 97 foreign students at B2 level. Two different work groups were identified. The experiment and control groups were chosen randomly. 57 students were included in the experiment group and 40 students in the control group. The characteristics of the students in the story application are given below:

Table 1

The Characteristics of the Students in Story Application

		Experiment		Control		p
		n	**%**	**n**	**%**	
Gender	Female	22	38,6%	8	20,0%	X2=3,805
	Male	35	61,4%	32	80,0%	p=0,041
Nationality	Europe	18	31,6%	7	17,5%	X2=8,565
	Africa	13	22,8%	6	15,0%	p=0,073
	Central Asia	2	3,5%	1	2,5%	
	Middle East	16	28,1%	23	57,5%	
	Far East	8	14,0%	3	7,5%	

A significant correlation was found between gender and group (X2=3,805; p=0,041<0.05). It is seen that the experiment group consisted

of 22 (38.6%) females and 35 (61.4 %) males; the control group consisted of 8 (20.0 %) females and 32 (80.0%) males.

No significant correlation was found between nationality and group (X2=8,565; p=0,073>0.05). The experiment group consisted of 18 (31.6%) people from Europe, 13 (22.8%) from Africa, 2 (3.5%) from Central Asia, 16 (28.1%) from Middle East and 8 (14.0%) from Far East; the control group consisted of 7 (17.5%) from Europe, 6 (15.0%) from Africa, 1 (2.5%) from Central Asia, 23 (57.5%) from Middle East and 3 (7.5%) from Far East (Table 1).

2.3. Data Gathering Tools

The research used the answers to the pre-test and post-test questions given by 97 B2 level foreign students in order to investigate their proficiencies in using the idioms and proverbs. Each proverb and idiom in the stories is used at least twice; once in every question and once in the options, when preparing the pre-test and post-test questions. No proverb or idiom not taught through the stories was included in the tests. Pre-test and post-test questions consist of 24 questions in which each proverb and idiom was questioned twice. Although the pre-test and post-test questions were the same, the sequence varied. The first question in the pre-test appeared as the 13th question. The reliability coefficient was calculated for the story application success test. The KR21 coefficient was found to be high as 0.804 and the KR20 coefficient was found to be high as 0.819.

2.4. Application of the Experimental Pattern

For the research, a set of proverb and idiom stories suitable for the level of the student was selected from various storybooks, which included proverb and idiom stories which the students could easily understand. Students to form the experiment and control groups were chosen randomly from among the students with a proficiency of Turkish language at B2 level. A pre-test was conducted to measure the students' pre-training proficiencies in proverbs and idioms. Following the application of pre-test, the experiment and control groups went through different processes. Following the pre-test, a training program through the stories was implemented for a period of eight weeks, in an attempt to teach the experiment group the proverbs and idioms. In this period, the experiment group was taught 40 different proverbs and idioms. Whereas the existing curriculum continued for the control group and no training program was performed in order to teach them the proverbs and idioms. The lists which included the target proverbs and idioms were handed out to the control group. A post-test was conducted for the experiment and control groups at the end of the course and the variation in the pre and post-training

success rates were observed. Each week, the story texts of the proverbs and idioms, which were aimed to be taught in that particular lesson, were handed out to the students prior to the story practice. Target proverbs and idioms were written on the board before beginning the reading activity. The students were asked to read some stories after they read the text and any words, idioms and proverbs were explained. They were asked to talk about the similar proverbs or idioms used in their own cultures, with a view to enabling them to reflect on what they learned and increasing the memorability.

2.5. Statistical Analysis of the Data

The data obtained in the study was analysed using SPSS 22.0 (Statistical Package for Social Sciences) for Windows program. Numbers, percentages, averages and standard deviations were used as descriptive statistical methods in the assessment of the data. As the research variables showed a normal distribution, parametric statistical methods were used in the research. A paired group t-test was used to compare the quantitative continuous data between the two dependent groups (repetitive measurement). A t-test was used to compare the quantitative continuous data between the two independent groups; a one-way Anova test was used to compare the quantitative continuous data between more than two independent groups. A Scheffe test was used as supplementary post-hoc analysis to identify the differences following the Anova test. The findings obtained were assessed in 95% confidence interval and at 5% significance level.

3. FINDINGS

This chapter includes the findings regarding the story application. Also, the findings concerning the characteristics-based differentiation from the data obtained in the implementations as well as the correct answers in the experiment groups were included. The tables with respect to the analyses used to identify the success of the application are given below.

Table 2

The Averages of Pre-Test Scores in Groups

	Group	**N**	**Aver.**	**Sd**	**t**	**p**
Total Pre-Test Score	Experiment	57	9,370	3,115	-2,114	0,037
	Control	40	10,720	3,105		

The difference between the group averages was found to be statistically significant as a result of the t-test conducted to identify whether the pre-test score averages of the students participating in the study showed any significant difference from the group variable ($t_{(1-95)}$=-2,114; p=0,037<0,05). Pre-test scores of the control group ($\bar{x}$ =10,720) were found to be high as compared to the pre-test scores of the experiment group ($\bar{x}$ =9,370).

Table 3

The Averages of Post-Test Scores in Groups

	Group	N	Aver.	Sd	t	p
Total Pre-Test Score	Experiment	57	16,350	4,307	3,680	0,000
	Control	40	12,780	5,235		

The difference between the group averages was found to be statistically significant as a result of the t-test conducted to identify whether the post-test score averages of the students participating in the study showed any significant difference from the group variable ($t_{(1-95)}$=3,680; p=0,000<0,05). Post-test scores of the experiment group ($\bar{x}$ =16,350) were found to be higher as compared to the post-test scores of the control group ($\bar{x}$ =12,780). This data should be considered as an evidence that the training implemented for the experiment group turned out successful.

Table 4

Average score variations in the Pre-Test and Post-Test Groups

	Group	N	Aver.	Sd	t	p
Variations	Experiment	57	6,983	3,603	5,804	0,000
	Control	40	2,050	4,766		

The difference between the group averages was found to be statistically significant as a result of the t-test conducted to identify whether the variation score averages of the students participating in the study showed any significant difference from the group variable ($t_{(1-95)}$=5,804; p=0,000<0,05). Variation scores of the experiment group ($\bar{x}$ =6,983) were found to be high as compared to the variation scores of the control group ($\bar{x}$ =2,050). Table 4 shows the score variations observed based on the pre-test and post-test results. Figure 1 illustrates the variation averages in the experiment and control groups.

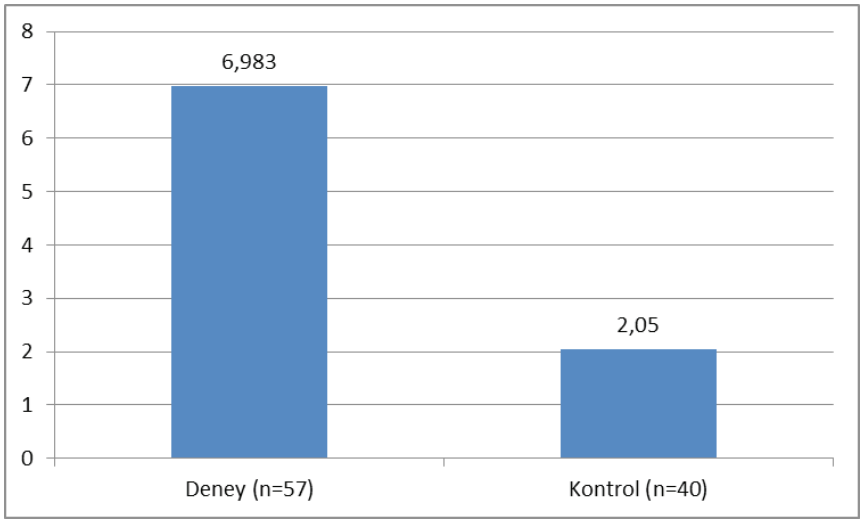

Figure 1. *Variation Averages in Experiment and Control Groups*

The findings that were obtained in the analysis conducted to determine whether there was a significant difference between the pre-test and post-test of the experiment group are given below:

Table 5

Significance of the Difference between the Pre-Test and Post-Test Scores of the Experiment Group

Measurements	**Pre**		**Post**		**N**	**t**	**p**
	Aver.	**Sd**	**Aver.**	**Sd**			
Pre-Test, Post-Test	9,370	3,115	16,350	4,307	57	-14,631	0,000

The difference between the arithmetic averages was found to be statistically significant as a result of the paired group t-test conducted to identify whether the pre-test and post-test averages showed any significant difference in the experiment group ($t_{(1-95)}$=-14,631; p=0,000<0,05). Pre-test average ($\bar{x}$ =9,370) in the experiment group is lower than the post-test average ($\bar{x}$ =16,350).

The findings following the analysis conducted to determine whether there was a significant difference between the control group pre-test and post-test in the control group are given below.

Table 6

Significance of the Difference between Pre-Test and Post-Test Scores in the Control Group

Measurements	Pre		Post		N	t	p
	Aver.	Sd	Aver.	Sd			
Pre-Test, Post-Test	10,720	3,105	12,780	5,235	40	-2,720	0,010

The difference between the arithmetic averages was found to be statistically significant as a result of the paired group t-test conducted to identify whether the pre-test and post-test averages showed any significant difference in the control group ($t_{(1-95)}$=-2,720; p=0,010<0,05). Pre-test average ($\bar{x}$ =10,720) in the control group is lower than the post-test average ($\bar{x}$ =12,780).

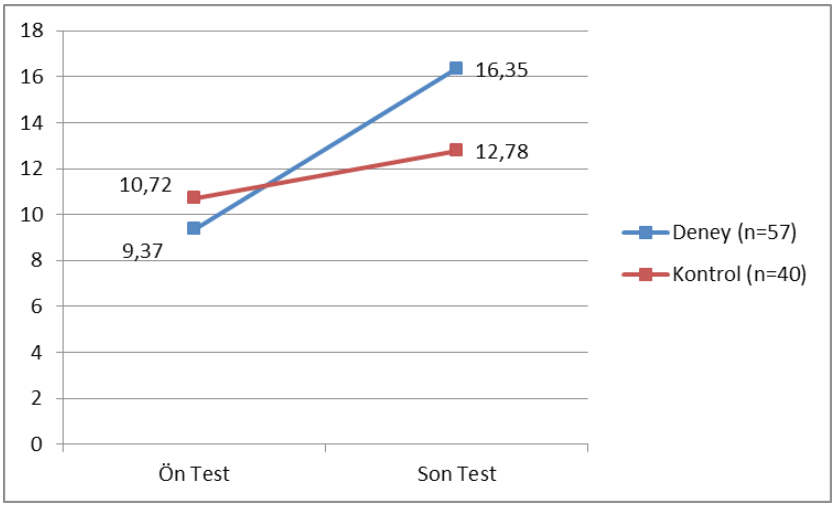

Figure 2. Variation Diagram between Pre-Test and Post-Test Scores in Experiment and Control Group

Figure 2 shows the variations regarding the proverb and idiom teaching through stories. Although the experiment group began with lower score prior to the training, as compared to the control group, it was found out that the experiment group closed the gap and turned out successful after the training. The fact that the positive variations between the pre-test and post-test scores showed a significant difference and were higher in favour of the experiment group corroborates this result. All these findings suggest that the story practice conducted were successful.

Table 7

Averages of Pre-Test Scores in Experiment Group by Nationality

	Group	N	Aver.	Sd	F	p
Total Pre-Test Score	Europe	18	9,780	2,691	0,874	0,486
	Africa	13	8,230	2,088		
	Central Asia	2	10,000	4,243		
	Middle East	16	9,120	3,722		
	Far East	8	10,620	3,926		

The difference between the group averages was not found to be statistically significant as a result of the one-way variance analysis (Anova) conducted to identify whether the averages of the pre-test scores of the students participating in the research showed any significant difference based on the nationality variable ($F_{(1-95)}$=0,874; p=0,486>0.05). The scores of the students prior to the story practice were found identical, based on their nationalities.

Table 8

Averages of Post-Test Scores in Experiment Group by Nationality

	Group	N	Aver.	Sd	F	p
Total Post-Test Score	Europe	18	17,390	3,109	0,631	0,643
	Africa	13	15,230	3,320		
	Central Asia	2	18,500	2,121		
	Middle East	16	16,060	5,157		
	Far East	8	15,880	6,446		

The difference between the group averages was not found to be statistically significant as a result of the one-way variance analysis (Anova) conducted to identify whether the averages of the post-test scores of the students participating in the research showed any significant difference based on the nationality variable ($F_{(1-95)}$=0,631; p=0,643>0.05). The scores of the students following the story practice were found identical, based on their nationalities.

Table 9

Averages of Variation between Pre-Test and Post-Test Scores in the Experiment Group by Nationality

	Group	N	Aver.	Sd	F	p
Variation	Europe	18	7,611	3,013	0,673	0,614
	Africa	13	7,000	3,582		
	Central Asia	2	8,500	2,121		
	Middle East	16	6,938	3,855		
	Far East	8	5,250	4,713		

The difference between the group averages was not found to be statistically significant as a result of the one-way variance analysis (Anova) conducted to identify whether the variation score averages of the students participating in the research showed any significant difference based on the nationality variable ($F_{(1-95)}$=0,673; p=0,614>0.05). It is seen that the amount of variation, which was caused by the story application, in the knowledge levels of the students as regards the proverbs and idioms shows similarity, based on their nationalities.

Table 10

Averages of Pre-Test Scores in Experiment Group by Gender

	Group	N	Aver.	Sd	t	p
Total Pre-	Female	22	9,770	2,894	0,774	0,442
Test Score	Male	35	9,110	3,261		

The difference between the group averages was not found to be statistically significant as a result of the t-test conducted to identify whether the pre-test score averages of the students participating in the research showed any significant difference based on the gender variable ($t_{(1-95)}$=0,774; p=0,442>0,05). It was found out that the scores of the students were similar in males and females prior to the story application.

Table 11

Averages of Post-Test Scores in Experiment Group by Gender

	Group	N	Aver.	Sd	t	p
Total Post-Test	Female	22	17,140	4,063	1,093	0,279
Score	Male	35	15,860	4,440		

The difference between the group averages was not found to be statistically significant as a result of the t-test conducted to identify whether the post-test score averages of the students participating in the research showed any significant difference based on the gender variable ($t_{(1-95)}$=1,093; p=0,279>0,05). It was found out that the scores of the students were similar in males and females following the story application.

Table 12

The Averages of the Variation between Pre-Test and Post-Test Scores in the Experiment Group by Gender

	Group	**N**	**Aver.**	**Sd**	**t**	**p**
Variation	Female	22	7,364	3,485	0,630	0,531
	Male	35	6,743	3,705		

The difference between the group averages was not found to be statistically significant as a result of the t-test conducted to identify whether the variation score averages of the students participating in the research showed any significant difference based on the gender variable ($t_{(1-95)}$=0,630; p=0,531>0,05). It is seen that the amount of variation, which was caused by the story application, in the knowledge levels of the students as regards the proverbs and idioms shows similarity, based on their nationalities.

4. CONCLUSION

Considering the pre-test score averages of the students participating in the research, it was evident that the students in the experiment and control group did not have equal knowledge and proficiency, based on the pre-test questions they answered regarding the proverbs and idioms. The pre-test scores of the control group ($\bar{x}$ =10,720) were found higher than the pre- test scores of the experiment group ($\bar{x}$ =9,370).

On the other hand, when the post-test score averages are examined, the post-test score average of the experiment group, which was 9,370, increased to a score average of 16,350 at the end of the eight-week training. Whereas, the pre-test score averages in the control group that received no training, which was 10,720, increased to a score average of 12,780. Although the experiment group had a lower score average as compared to the control group prior to the training, they showed a greater success than the control group, following the training. This data should be considered as an evidence that the education implemented for the experiment group turned out successful.

Considering the variation scores between the pre-test and post-test scores, the variation scores of the experiment group ($\bar{x}$ =6,983) were found to be higher than the variation scores of the control group ($\bar{x}$ =2,050). When the variation in the experiment group and the variation scores in the control group were examined, it was discovered that the amount of the variation in the experiment group was higher than the amount of variation of the control group. A significant different was identified between the pre-test and post-test scores in the experiment group. Pre-test average ($\bar{x}$ =9,370) is lower than post-test average ($\bar{x}$ =16,350). A significant difference was found between the pre-test and post-test score in the control group, as well. The control group has a lower pre-test average($\bar{x}$ =10,720) as compared to the post-test average ($\bar{x}$ =12,780). However, the difference in scores is higher in the experiment group. These findings indicate that the story practice conducted in the experiment group was more successful as against the classical method, in proverb and idiom teaching.

No significant difference was found in pre-test and post-test averages, based on the analyses conducted in order to determine whether the students participating in the research showed a significant difference by the gender variable. Following the story application, the scores of the students were found to be identical by the gender. When the variation scores between the pre-test and post-test score in the experiment group are examined, it is seen that the amount of variation, which was caused by the story application, in the knowledge levels of the students as regards the proverbs and idioms shows similarity, based on their nationalities.

No significant difference was found in pre-test score averages, based on the analyses conducted in order to determine whether the experiment group students participating in the research showed a significant difference by the gender variable. It was found out that the scores of the students in the experiment group were similar in males and females, prior to the story application. Similarly, when the post-test score averages are examined by the gender variable, statistically no significant difference was found and the scores were similar in males and females. Considering the variation scores between the pre-test and post-test scores in the experiment group, it was found out that the amount of variation, caused by the story application, in the knowledge levels of the students as regards the proverbs and idioms did not show any differentiation by gender. Female and male students achieved approximately similar success rates following the training. No difference was discovered in respect of gender.

The technique of teaching through stories should find place in the lessons, in preference to other classical methods, given the success of the education implemented in an effort to pay the necessary attention to proverb and idiom teaching in Turkish education as a foreign language.

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Chapter 10

IMPLEMENTATION OF ART THERAPY FOR CHILDREN WITH SPECIAL EDICATIONAL NEEDS

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Historical overview

British artist Adrian Hill was the first to use the term "art therapy" to describe the therapeutic use of painting. For Hill, the man who discovered the therapeutic benefits of drawing and coloring during his treatment and treatment of tuberculosis, the value of art therapy lies in fully engaging the mind and releasing creative energy in the inhibited patient (Junge, 2016).

Around the same time, Margaret Naumburg (2001), a psychologist, also began to use the term art therapy to describe her work in America. Her approach is psychoanalytic, striving to recognize basic human thoughts and feelings, she is a pioneer in the application of expressive artistic expression as a therapeutic tool.

Definition of art therapy

As the profession developed, definitions of art therapy became more common. From a modern perspective, art therapy can be defined as a form of therapy in which the creation of images and objects plays a central role in the psychotherapeutic relationship established between the therapist and the child. According to the British Association of Art Therapists, art therapy is the use of art materials for self-expression and reflection in the presence of a trained art therapist. The art therapist does not take into account the aesthetic appearance of the child's work, nor the diagnostic assessment, the main goal is to enable the child to achieve a positive change of personality through the use of various art materials, in a safe and stimulating environment (BAAT, 2003).

The American Art Therapy Association gives a slightly different definition: therapeutic application of artistic expression, with a professional relationship with people who have experienced illness, trauma, sudden and drastic changes in life, as well as people seeking personal development. By creating art and reflecting on products and processes, people can increase awareness of themselves and others, cope with the symptoms of illness, stress, traumatic experiences, improve their cognitive abilities and learn to enjoy life, experiencing pleasure through artistic expression (Elkins & Deaver, 2015).

The goals of art therapy are different and vary depending on the individual needs of the children. For some, therapy may aim to encourage them to express themselves and share their emotions, while for others it may aim to enable them to hold a pencil and leave a mark on the sheet, giving them the opportunity for new expression. Goals can change in parallel with the development of a therapeutic relationship (Rubin, 2005). It is normal for art therapy to have elements of education, because the

therapist helps the child to create something. Education, learning is secondary to the primary goal, in other words, if the therapist teaches the child certain techniques, he does it, so that the child can achieve better expression of feelings, higher level of sublimation or increase self-esteem (Rubin, 2016).

Stages in the development of art expression

Manipulation (1-2 years)

The first stage in any encounter with the materials is the manipulative stage. Manipulation, of course, may be inappropriate, e.g., putting clay in the mouth, or writing with a pencil on the wall. This behavior is not wrong from the perspective of the child or the therapist, but is misinterpreted and problematically defined by the environment. In general, we allow children and adults to smear, record, model, construct with natural materials as soon as they are able to do so, but limiting them to using natural materials in unacceptable situations and behaviors. Sensory experiences (feeling of color or softness and stickiness of clay, texture of sand or wood), kinesthetic experiences (movement of the arms, shoulders, and often the whole body when printing, modeling or assembling objects) are very important at this stage (Wadeson, 2010). As the child becomes aware that it is the person who has changed the appearance of the clay or other material, he begins to be interested not only in the manufacturing process but also in the product that will be created, although at this stage there is no real concern for the appearance of the final product (Rubin, 2011).

Formation (2-3 years)

As children mature intellectually and physiologically, they gain more control over their movements and become more responsible for what happens when they use e.g., clay or pencil. They practice and demonstrate their control over materials by repeating certain movements or activities, such as cross or circular scraping, rolling, or pressing (flattening) the clay (Johns, 2020). They begin to consciously change their manipulations of materials, making the first points and lines, or lines and shapes, rolling and flattening, they begin to build in a way that is more than just a simple collection and piling. Then they start making isolated shapes or objects. Although they are not representative, they represent a step towards creating and creating volitional forms (Singer & Singer, 2009).

Naming (3-4 years)

Whether as a result of adult curiosity and constant questioning by children, or as a result of a child maturing and reaching the stage where

they are thinking of doing "something", the next stage in almost every child is naming objects as real things. Adults are usually confused because the mixture of colors, the configuration of clay or wood, in no way resembles the object with which they are named. At the same time the product can symbolize different things for a 3-year-old child, their identity changes because it is not fixed for any quality of workmanship, but for the children's association at a given moment (Horne & Lowe, 1996).

Representing (4-6 years)

There comes a time when making representations arises from the processes of manipulating, forming and naming work with materials. Often the products are strange to the eyes of adults, difficult to recognize, not infrequently mixed in the same image. However, they differ from the previous ones because they include a component-quality of the object they represent. Early human figures, e.g. The well-known cephalopods have a shape resembling a head-body, limbs-like extensions, and one or more other features reminiscent of the object or character they represent (Hinz, 2019). One way to explain this early childhood work is to point out that the child draws what he knows, not what he sees, but at 3, 4 or 5 years the child can represent much less than what he knows or sees, and this is actually a condensed form of symbolism. During this period, not only the configuration of lines or mixtures is also important, but also the children begin to fill in the forms inside, clearly marking the outer borders. Growth and maturation in children are associated not only with increasing their capacities, but also with increasing self-control and impulsivity (Wright, 2010). This is a time when children practice not crossing lines and boundaries, a time when they try different ways of doing things, which is good for developing flexibility. Lowenfeld calls this phase the "pre-schematic phase" (Smits, 2016).

Consolidation (6-9 years)

This is a period when most children go to school and begin to consolidate their artistic expression, just like other areas of behavior. They begin to find preferred ways of expressing themselves, trying to repeat them often, not making different attempts as before. These patterns and symbols are at the same time simple and complex, some are real, others are significantly strange and unknown. At this stage children still enjoy using a lot of color, that segment is not realistic enough (Case & DaLley, 2014). The redirection to a different kind and order of schematic symbols and their interrelationship is parallel to the redirection from the egocentric point of view to the socially accepted point of view. Most often, the first subject in children's drawings is the person, drawing himself or a family

member, and as their acquaintances and horizons increase, they include other people in the drawings, plants, animals, houses, cars, etc (Krampen, 1991).

Naturalization (9-12 years)

At this stage, children's art becomes more natural and more real. For example. body parts are represented in a more realistic proportion, spatial (spatial) relationships become more adequate, relative size and color of objects become closer to the real ones (Lindstrom, 2021). At this stage they face, more precisely deal with proportions, shading and coloring, attempts to control the quality of the line and color, feel greater responsibility for the real appearance of two-dimensional and three-dimensional objects (Malchiodi, 1998). Unlike the previous period when all the children were satisfied with their product, here most of the children are self-critical and dissatisfied with the end result, many of them face anxiety, frustration and rejection, to which attention should be paid and ways should be found, in order to stimulate them to continue their artistic expression (Pulos, 2020).

Personalization (12-18 years)

For many children, the period of naturalization takes a long time, until the end of primary school, and even early adolescence. If young people have enough success in expression, proper instruction and enough practice, they can develop an impressive degree of naturalistic representation skills using any medium (Chiang et al., 2019). Some, less successful in naturalism, may turn to abstract expression, often preferring creative activities without the use of graphic media. They become more critical, the aesthetic component is important to them and they try to find a personal style of expression (Lusebrink, 2004).

From scribbles to the first forms

Most psychologists who are interested in studying children's drawings state that children at the age of one year - a year and a half, begin to draw shapes, which are in fact their first attempts to represent the world. With regard to psychomotor skills, control of bipedal position and eye-hand coordination should be considered (Malchiodi, 1998).

Phases of Development by Viktor Lowenfeld

Scribble phase (3 years)

The first scribbles are simple records of enjoyable kinesthetic activities, not attempts to represent the visual world. After a period of

6 months of scribbling, scribbling becomes more orderly as children become more aware and concerned about their work. They soon begin to change the scribbles. The "Scribble" phase consists of four sub-phases. (a) Disturbed - uncontrolled marking which may be with bold lines or light with less visible trace, depending on the child's personality. At this age the child has little or no control over motor activity. (b) Longitudinally controlled repetitions of movements. Demonstrates visual awareness and enjoyment of kinesthetic movements. (c) Circular - further investigation of controlled movements that demonstrate the possibility of making more complex shapes. (d) Naming - the child tells stories about scribbles. There is a shift from kinesthetic thinking in relation to movement to imaginative thinking in relation to images (Lowenfeld, 1957).

Pre-schematic phase (3-4 years)

The pre-schematic phase is announced by the appearance of circular images with lines that seem to suggest a figure of a human or animal. During this phase the scheme (visual idea) develops. The drawings show what the child sees as the most important thing on this topic. There is little understanding of space - objects are placed in an unusual way throughout the image. The use of color is more emotional than logical (Hickman, 2010). The first conscious creation of forms appears around the third year and provides tangible records of the thinking process in children. The first representative attempt is a man, usually with a round head and two vertical lines marked as legs. Other forms appear later, clearly recognizable and often complex. Children are constantly looking for new concepts, so the symbols are constantly changing (Smits, 2016).

Schematic phase (6 years)

The child arrives at the "schemes", a definite way of presenting objects, although this will change when the child wants to present something important. The scheme represents the active knowledge of the child about the given subject. At this stage there is a definite order of the patterns in the space, all placed on the base line of the sheet. This phase is easily recognizable by the developed awareness of the concept of space. The boundaries of the sky - above and the ground - are clearly set in the drawing. The objects in the drawing are spatially related. Colors are reflected as they appear in nature. Shapes and objects are easy to define. Inadequate proportions and proportions are observed between the figures (people taller than the house, flowers larger than people, large and small family members), which is often used to express strong feelings about a topic (Sullivan, 2015). Another technique that is sometimes noticed is "overlapping", this is seen when objects are drawn linearly on the base.

Sometimes it seems that the objects are drawn upside down. Another phenomenon is called "X-ray" or X-ray image, where the subject or object is shown as everything to be seen from the inside, as well as from the outside (Lima et al., 2019).

Gang phase (drawing realism 8-10 years)

In this period, group friendships are of the same sex and that is why it is called gang phase. This is a period when self-awareness develops, they become self-critical. Attempts at realism should be viewed from the child's point of view. Realism is not meant to be real in a photographic sense, but the result of experience with a particular subject. For the first time a child becomes aware of a lack of ability to display objects the way they appear in the middle. People are portrayed as a girl, a boy, a woman, a man with clearly defined details that often result in the "stiffness" of the national team. Perspective is another feature of this phase. There is an awareness of the space between the baseline and the celestial line. Overlapping objects, different types of perspective and the use of small to large objects are evident at this stage. The items are no longer on the baseline (Gude, 2009). Three-dimensional effects are achieved along with shading and the use of subtle color combinations. Due to the awareness of lack of skills, drawings often appear less spontaneous than in previous stages. The child realizes that the schematic generalization of objects is no longer sufficient to represent reality. Children begin to compare their work and become more critical (Smith, 1989).

Pseudo-naturalistic phase (12 years)

This phase is the end of the spontaneous activities of children's artistic expression, the focus is more on the final product, they begin to introduce shading, movement, three-dimensionality of objects, reducing the size of objects that are further away. In the previous stages, attention was focused on the manufacturing process, at this stage the product becomes the most important for the child. During this period, two factors affect the product, the visual stimuli from the environment and the experience of the child. The work of the non-visual individual is based on subjective interpretations that emphasize emotional relationships with the outside world, and use colors to express emotions. While visual types see how colors change under the influence of a number of external factors (Linder, 2012).

- How to overcome scratching in children with autism spectrum disorder

The most common goal in art therapy at the beginning of working with children with autism spectrum disorder is to move from drawing "nothing" to drawing "something", that is, a movement from scribble to representational drawing. It is true that at first children's drawings can be very disorganized, impulsive and repetitive and that there is a connection between their symptoms and their drawings, but art therapists and art teachers need to distinguish between "good" scribbles (focused, contemplative, experimental, sometimes even chaotic) and "bad" scribbles (symptomatic), both of which are present in children in the spectrum to a greater or lesser degree (Siegel, 2003).

Art therapy or Isotherapy

Isotherapy - art therapy, primarily drawing, used to improve the mental state of neurotic patients, people with psychosomatic disorders, children and adolescents with learning and social adaptation difficulties, cases of family conflicts, etc. (Makhmudovna, 2021). Fine art or artistic expression allows the children to feel and understand themselves, to freely express their thoughts and feelings, to be alone, to freely express dreams and hopes, and also to get rid of negative experiences from the past. Drawing develops sensomotor coordination because it requires the coordinated participation of many mental functions to be realized. According to many experts, drawing is responsible and is involved in coordinating the connections between the two hemispheres, for example, when drawing specific objects, the right hemisphere is involved, while in abstract drawing, the left is involved. By including in the act of drawing, vision, motor coordination, speech and thinking, drawing not only helps their individual development, but also enables their interconnection (Sattarovna, 2020). Isotherapy uses the imaging process as a tool to achieve goals. This is not a work of art, nor is it part of a visual arts class. Psycho-correction exercises using isotherapy serve as a tool for studying feelings, ideas and events, for developing interpersonal skills and relationships, strengthening self-confidence. All types of art materials are suitable for isotherapy. It can be applied modestly, only with pencil and paper, or a large set of art materials. The artistic materials have a direct impact on the child's artwork. Through sight and touch, they generate emotional uplift and awareness, and thus a dynamic interaction takes place between the creator and the art material. The art therapist is particularly interested in discovering which material is most expressive for the child. The free choice of material is the most important driving force in the process of artistic work (Eldarovna, 2020).

Art therapy includes a wide range of different visual materials (Case & Daley, 2014):

1. paints, pencils, wax crayons, pastels;

2. magazines, newspapers, wallpapers, paper napkins, paint, used to create collages or volumetric compositions paper, foil, film, candy boxes, postcards, braid, rope, textile;

3. natural materials - bark, leaves and seeds of plants, flowers, feathers, branches, moss, pebbles;

4. for modeling - clay, wood, special dough;

5. drawing paper in different formats and colors, cardboard;

6. brushes of different sizes, sponges for painting large blanks, scissors, threads, different types of adhesives, adhesive tape.

Psychological impact of art materials

1. The choice of materials affects how long the treatment lasts. Some materials, such as pencils, crayons and pens that are sharp or pointed, will allow you to "strengthen" control, while others - pastels, paint and clay - contribute to freer expression.

2. If the child is not self-confident or just tired, he will feel more confident and calmer when working with materials that are easier to control.

3. When working individually with children or groups whose behavior is difficult to control, you should start with "controlling" materials.

4. Many feel insecure about their artistic abilities. Cutting out pictures from a collage magazine "flattens" participants and allows even very uncertain children to join the work.

5. As soon as all the children are happy to participate in the exercise, you can give materials such as paint or clay, the opportunity for deeper self-expression, especially when studying feelings or reactions.

6. Working with "expressive" materials can be therapeutic for many children (Pesso- Aviv et al., 2014).

When perceiving art products, the art therapist should pay attention to the following aspects (Rubin, 2011):

1. What feeling does the drawing, the collage, the sculpture convey;

2. What looks strange;

3. What is missing on this subject;

4. What is in the center. That in the center often indicates the essence of the problem or what is the main thing for this person;

5. What are the sizes and proportions of the displayed objects and people. Disproportionate objects lead us to seek an answer to a question that is excessive; large figures are designed to emphasize something, or conversely excessively reduced - minimize. Distortion of form can symbolize a problem area, greater attention, and deeper understanding, which can help restore normalcy;

6. Are there duplicate items? The number of items in many plays a big role for the child, because it has to do with time units or significant events in the past, present or future;

7. In what perspective is the work done and how is it used by the author. Combining several types of perspectives into one thing may be related to the presence of contradictions in the author's life;

8. Has signatures on the works - reflects the degree of trust in the non-verbal way of communication.

Stages of isotherapy for children with special educational needs

First phase

Free activity before the real creative process - direct experience. For children unfamiliar with art therapy, this is a very important phase of sensory, emotional, and conscious experiences in experimenting with art material. By trying and mixing colors in a play style, the child can discover different qualities related to the material and himself (Figure 1). The time interval dedicated to the activity itself depends on the child, its needs and problems, and age. Immediate experiences evoke sensory sensations from art material, as well as a variety of emotions and thoughts (Voronina & Churkina, 2020). A child can play for twenty minutes during the first session and then move on to the second part of the process. Another child can get acquainted with the material in a few sessions. There are those who need to "play" a few minutes before the start of each session (Seitenov et al., 2020).

Figure 1. First phase of art therapy

Second phase

Process of creative work - creating a phenomenon, visual representation. Often after inertia from a previous activity of the game, and sometimes absolutely consciously and thoughtfully, the child quietly begins to interact with his creative self-expression, this happens even when there is a therapist next to them. This first stage transformation can be seen in children of all ages, even young children. In addition, at this stage, regardless of age, most children demonstrate behaviors typical of artists in the work process: concentration, determination, involvement, excitement, ingenuity, and sometimes problem-solving (Guttman & Regev, 2004).

Third phase

Distancing, a process of consideration aimed at achieving a deliberate vision. The work is located in a place where it would be easy to see. The child is encouraged to actively participate in the placement of works of art. Symbolically, the child accepts responsibility for his problems by accepting responsibility for setting up his work. A room large enough is needed for the therapist and the child to choose a place at a convenient distance from the artwork. The act of distancing enables better visibility of the work and objectivity in its evaluation, awareness of its value and significance. The art therapist can tell the child: “Look at your work, concentrate on it, look carefully and find what you have not seen before.” In this quiet process of intuition, some details, “invisible” immediately, at first glance, may come out, becoming more important than other parts of the visual field (Waller, 2006). Soon, the details become important, and

the observer begins to make connections with the meanings (Figure 2). Children may notice new and important details such as the relationship of the components in a work of art, for example, a contrasting or harmonious combination of two colors, the unusual location of something or a line that stands out due to its thickness, unevenness, softness and the like (Councill, 2003).

Figure 2. Art therapy work of a child with intellectual disability

Fourth phase

Verbalization of feelings, thoughts that appeared as a result of considering creative work (Figure 3). Now, the child should be asked "What do you see?", The Art Therapist invites children to describe what they saw in the picture. Externally the question is very simple and naive. However, it contains three basic aspects of the phenomenological approach (Snyder, 1997).

✓ The first is the importance of individual perception: what the child sees. An art therapist can work with this material because the child's art description leads to his inner world.

✓ The second aspect refers to the child's feelings - listening carefully to the therapist marks is the beginning of trust.

✓ And third, what do you see? When necessary, the art therapist helps the child to see features of works of art that were previously invisible to the naked eye, the child must learn to see them. Often these are structural features, namely the relationship of the components to each other and the general structure, what role they play in the whole picture.

Thus, the description leads to a dynamic change in the perception of the image structure and accordingly the internal experience of the child is restructured. Children can define the expressive features of the image and learn to identify them as their feelings and attitudes (Franklin, 1992).

Figure 3. Art therapy in Special Institution for children with Intellectual disabilities

When the therapist asks the child to describe the image as if he or she were part of the image, using the word "I". For example: "I am a triangle, I have red lines all over my surface, and in the middle is a blue circle." Specific objects in the picture are selected, in order so that the child identifies them with something: “Be a blue square and describe yourself: what you look like, what your actions are, etc. If necessary, other questions can be used for the child to make their task easier: "What are you doing?", "Who is using you?", "Who is closest to you?" These questions help get into the child's drawing (Evans & Dubowski, 2001). The child is encouraged to work as deeply as possible with the specific part of the picture, especially if there is enough energy and inspiration or if there is an unusual lack of them. Questions often help here: "Where is she going?"; "Does this circle mean anything?" “; "What will she do?"; "What will happen to this?" etc. If the child says "I do not know", the attention should be directed to another part of the picture, with another question. The therapist asks the child to pay attention to the colors (Hickman, 2010). While the child is sitting with his eyes closed, encourage him to think about the following: “Think about the colors you want to use. What do you mean by bright colors? What do dark colors mean to you? Will you use light or pastel colors, light or dark colors?” The therapist works on identification, helping the child identify with the objects in the drawing and then relate them to events in their life (Evans & Dubowski, 2001).

Before moving on to more complex and unpleasant parts, it is recommended to work with what is easier and more comfortable for the child. Because when talking to children about easier things, they become more honest and talk about more complex things. Some children find it harder to share their sadness, they find it easier to express positive emotions. However, this is not true in all cases, sometimes children who are filled with anger feel the need to release it in some way before they discover positive emotions (Case & Dalley, 2002). During the whole session, external manifestations of behavior are observed: characteristics of the tone of voice of the child, his body position, facial expression, gestures, breathing, pauses. Silence can mean control, consideration, reminder, repression, anxiety, fear, or awareness of something. These characters should be used in sequential work (Councill, 2003).

The child should be given different materials to choose from: paper in different formats (wallpapers are great materials), paints, pastels, crayons, thick and thin brushes (Figure 4). When working with visuals, the children should be supported to use lines, shapes, light strokes, fat strokes, long and short strokes, light colors, dark and matte colors, long and short, thin and thick figures to display objects (Buchalter, 2004). The children should be asked to work fast. If stereotype is noticed, then exercises with actions contrary to those already known, should be implemented. During exercises that require compliance with the time interval, the art therapist can use a stopwatch, or an hourglass. As drawing themes, many other things can be used: fantasies, stories, sounds, movements, sights. The art therapist can also combine the drawing with the composition of literary works, poems etc. (Evans & Dubowski, 2001).

Figure 4. Using different materials during art therapy

Conclusion

Art therapy uses the art medium as the primary way of communication and combines various creative techniques from art, music, drama therapy, movement therapy, family therapy, etc. Art enables learning through activities that encourage and facilitate educational and social development. Art therapy provides a greater degree of self-awareness and creativity, both in typical children and in children with developmental disabilities. Art therapy can be applied individually or in small groups. Through art therapy, the child expresses his feelings, thoughts, internal conflicts in the form of a picture, drawing or some other kind of art. This therapy is especially useful for children with special educational needs. Art therapy is a form of psychotherapy, that does not evaluate whether the drawing is nice or not nicely drawn, instead it assesses how the student felt, to awaken the emotions and feelings when creating the art work. There are many techniques of art therapy for working with children with special educational needs: drawing sand, rice, flour; drawing with watercolors on paper; finger painting; drawing straight and rounded lines; working with plasticine; collage; mirror drawing shapes, etc.

With the art therapy, the children with special educational needs can keep their attention longer, develop interest in new things, improve the fine motor skills as well as the patience and perseverance. As a final product is the most important psychological element: pleasure from what is made.

The use of art therapy with children with special educational needs increases motivation and can significantly optimize the child's development.

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Chapter 11

DETERMINING THE TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE [TPACK] SELF-EFFICACY OF SCIENCE TEACHERS

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Introduction

The fact that the curriculum used in primary schools and secondary schools in Turkey was fundamentally based on the constructivist paradigm, made it essential to develop new teacher competencies (Turkish Education Association [TEA], 2009). Competences that teachers should have and how to foster the development of these competencies are issues constantly discussed in Turkey, like many other countries concerned with improving the quality of education and instruction. (Erdem, 2005; General Directorate of Teacher Training and Education [GDTTE] 2006; Seferoğlu, 2009a). Improving the quality of the teaching profession could be achieved by first identifying the general and specialized content competencies that teachers should possess and scaffold the development of these competencies (GDTTE, 2006). Studies on general and specialized content competencies of the teaching profession, conducted by the Ministry of National Education (MoNE) in liaison with the High Education Board [HEB], the World Bank, and universities, aim to modernize teacher training and increase the quality of teaching in Turkey (Canbazoğlu-Bilici, 2012). Teaching proficiencies are described as ‘’knowledge, skills and attitudes that should be had for carrying out the teaching profession efficiently and effectively’ (TEA, 2009). Within this context, General Competencies for Teaching Profession and Special Content Competencies for science teachers were determined by the Ministry of National Education (2008) and shared with the public. Using “information technologies” effectively was also included in the specialized content competencies of science teaching. On the other hand, it was emphasized that teachers should have competencies that meet standards related to five different areas in the “National Educational Technology Standards for Teachers” report prepared by the Information Society of Technology in Education (ISTE, 2008), which include(a) facilitating and inspiring student learning and creativity, (b) designing and developing digital-age learning experiences and assessments, (c) modeling digital-age work and learning, (d) promoting and modeling digital citizenship and responsibility, and (e) engaging in professional growth and leadership. As stated above, the common threadsin the reports pertaining to the competencies of teachers were the importance of integrating technology into the learning and teaching process and the necessity that teachers gain the relevant competencies through supportive professional development in instructional technology (Kokoç, 2012). However, what is important here is how the technology can be integrated into the student learning rather than the teaching (Mishra, Koehler, & Kereluik, 2009). From this point of view, Technological Pedagogical Content Knowledge (TPACK) is a complex understanding of the best ways to integrate technology into

the classroom that help students construct their own knowledge (Polly &Brantley-Dias 2009 as cited in Kokoç, 2012).

TPACK was constructed upon Shulman's (1986) Pedagogical Content Knowledge (PCK), the intersection of content and pedagogical knowledge, to describe how teachers understand the educational technologies and use them to provide an effective education (Koehler & Mishra, 2009). According to Chai, Koh, and Tsai (2013), TPACK embodies the integration of educational technologies and information and communication technologies into the classroom learning environment. According to Harris, Mishra, and Koehler (2009), TPACK emphasizes the need for teachers to understand specialized pedagogies pertaining to the technologies, in light of the curriculum content, in order to provide efficient instruction. According to Niess (2011), TPACK is a knowledge base from which teachers can draw to make instructional decisions on integrating digital technologies as a learning tool. According to Jimoyiannis (2010), TPACK framework houses the necessary information about how teachers can integrate technological devices for teaching a specific content at their schools. When TPACK and its contents are analyzed in Figure 1, one can see that the main aspects of knowledge in TPACK are content knowledge, pedagogical knowledge, and technological knowledge (Alayyar, Fisser, & Voogt, 2012).

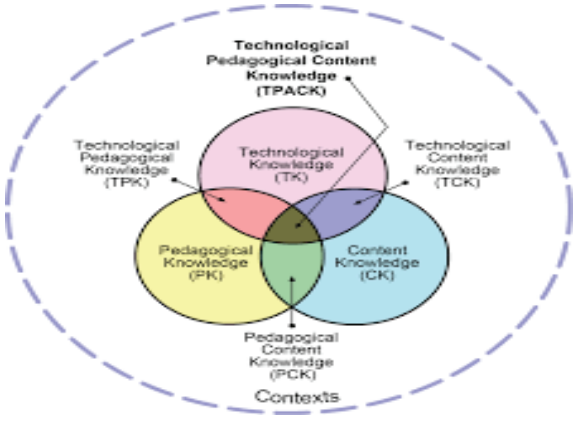

Figure 1. Technological pedagogical content knowledge [TPACK] (Mishra & Koehler, 2006)

Definitions

According to the TPACK model, Pedagogical content knowledge, Technological content knowledge, Technological pedagogical knowledge, and Technological pedagogical content knowledge, which emerge at the intersections of these basic forms of knowledge, are equally significant

(Koehler & Mishra, 2009). TPACK and its related knowledge can be described as follows:

Pedagogical Knowledge: Deep knowledge about the processes and practices or methods of teaching and learning (Koehler & Mishra, 2009).

Content Knowledge (CK): Knowledge about the subject matter to be learned or taught (Koehler & Mishra, 2009).

Technological Knowledge (TK): Knowledge about various technologies, ranging from low-tech technologies, such as pencil and paper, to digital technologies such as the internet, interactive whiteboards, and software programs (Schmidt et al. 2009).

Pedagogical Content Knowledge (PCK): Consistent with and similar to Shulman's idea of knowledge of pedagogy that is applicable to the teaching of specific content (Koehler & Mishra 2009).

Technological Content Knowledge (TCK): Knowledge about the manner in which technology and content are reciprocally related (Mishra & Koehler, 2006).

Technological Pedagogical Knowledge (TPK): Knowledge of the existence, components, and capabilities of various technologies as they are used in teaching and learning settings and, conversely, knowing how teaching might change as the result of using particular technologies (Mishra & Koehler, 2006).

*Technological Pedagogical Content Knowledge (TPACK):*TPACK is an emergent form of knowledge that transcends all three components (i.e., content, pedagogy, and technology) (Mishra & Koehler 2006). It is the basis of effective teaching with technology (Koehler & Mishra, 2009).

Self-Efficacy: Self-efficacy reflects confidence in one's ability to control his / her own motivation, behavior and social environment. In addition, self-efficacy can be expressed as successfully carrying out the behavior required to produce the product (Bandura, 1978).

It is thought that TPACK epistemology is a necessary knowledge for increasing and developing the skills of science teachers in the 21stcentury or, in other words, increasing the quality of science teachers (Srisawasdi, 2014). From this viewpoint, studies have been conducted on the TPACK of science teacher candidates (Alayyar, Fisser, and Voogt, 2012; Jang & Chen, 2010; Kaya, 2010; Kılıç, 2011; Niess, 2005; Timur, 2011) and science teachers (Annetta, Frazier, Folta, Holmes, Lamb, & Cheng, 2013; Guzey & Roehrig, 2009; Hennessy, Deaney, Ruthven, & Winterbottom, 2007; Jimoyiannis, 2010). Furthermore, studies on TPACK have been conducted at the national level (Akkoç, 2011; Bal & Karademir, 2013;

Özgen, Narlı, & Alkan, 2013; Yavuz-Konokman, Yanpar Yelken & Sancar Tokmak, 2013) and the international level (Allan, Erickson, Brookhouse & Johnson, 2010; Angeli & Valanides, 2009; Chai, Koh, & Tsai, 2010). With this study, technological pedagogical content knowledge of science teachers will be determined and studies will be carried out on what should be done in order to eliminate the existing deficiencies.

Literature Review

Guzey and Roehrig (2009) studied the influence of professional development programs on TPACK development in secondary school science teachers. As a result of the study, it was found that the professional development program had different effects on the participants. Schmidt et al.'s (2009) study aimed to monitor the development of TPACK of teacher candidates throughout the lessons in which information technologies are used. Results showed there to be an increase in all the knowledges of TPACK in the teacher candidates who participated in the study, with the greatest increase in technological knowledge (TK), technological content knowledge (TCK), and technological pedagogical content knowledge (TPACK). Alayyar, Fisser and Voogt (2010) studied the influence of curriculum on the TPACK development of science teacher candidates. As a result of the study, a certain increase was observed in the TPACK level of teacher candidates. In another study conducted by Abbitt (2011), the relation between the self-confidence of teacher candidates in the technology integration and the TPACK was investigated. Results indicated a positive relationship between the TPACK and technology integration self-confidence. Graham et al. (2009) study aimed to describe and measure the TPACK in relation to science teaching and evaluate the TPACK self-confidence change of the teachers who participated in the "SciencePlus" professional development program. A significant increase was reported in the TPACK and its sub components: TPK, TCK, and TK, thanks to professional development program implemented in the study. Lehiste's (2015) study incorporated educational technologies within an in-service training program for teachers within the framework of TPACK to determine if the training program would bring about an increase in the TPACK components. He reported a significant increase in all the knowledge components of TPACK, with the greatest increase in TK and TPACK. However, the increases in the CK and PK were limited.

In one of the studies conducted in Turkey by Kılıç (2011), TPACK of science teacher candidates about electrical current and their in-class applications was examined. The aim was to evaluate TPACK of the science teacher candidates in terms of their CK, PK, and TK along with the relationships between their knowledges and how they demonstrate

their various knowledges in the classroom. As a result of the study, it was found that CK of science teacher candidates about electrical current and their perceptions related to the nature of science were not scientifically sound, and they had misconceptions within the content. Furthermore, PK and TK of the science teacher candidates were emerging, yet they were not highly successful with applying these knowledges in the classroom. It was evident that there was a statistically significant relationship between their in-class PK applications and their PK and between their in-class TK applications and their TK. However, there was no statistically significant relationship between their in-class CK applications and their CK.

Savaş (2011) studied the relationship between TPACK and the genetic knowledge of the science teacher candidates. According to the study results, the genetic knowledge of the science teacher candidates was related to the other components of TPACK, except for the perceived project-based TK which had a positive significant relationship with genetic knowledge. In addition, there were significant differences in educational technology knowledge, genetic technological knowledge, project-based technology knowledge, and CK among the various class levels of the participants.

In the study conducted by Ergene (2011), the aim was to develop a program to provide the knowledge that mathematics teacher candidates would need to integrate technology successfully within the scope of TPACK. For this purpose, the development of the teacher candidates' TPACK with respect to "multiple representations "was explored. After the TPACK training, the teacher candidates had improved in using multiple representations and making connections between the representations they used, as evidenced in their use of technology.

Kokoç (2012) investigated the TPACK development processes of the classroom teachers during the combined professional development that was carried out face-to-face with some and online with others. Upon completion of the program, the 24 classroom teachers demonstrated an increase in their knowledge with the greatest increase in TK. Moreover, it was concluded that professional development programs have a positive influence on TPACK.

In the study conducted by Canbazoğlu-Bilici (2012), changes in the TPACK and TPACK self-efficacy of the science teacher candidates over an academic year was evaluated. It was determined that in a science and technology course, into which technology was integrated, the knowledge of the teacher candidates was completely sufficient, yet their knowledge of the aims and objectives related to teaching science with technology was only partially sufficient. When the TPACK of six teacher candidates in fall

and spring terms were compared, it was evident that the teacher candidates understood the necessity of making use of technological equipment in order for students to learn a specific science subject. When the self-efficacy related to TPACK of the teacher candidates was evaluated, it was determined that the self-efficacy of 27 teacher candidates had increased towards the end of the fall semester when compared to the beginning of the fall semester.

In Karakaya's (2012) study, science teachers' candidates TPACK of global environmental problems (e.g., global warming, acid rains, and ozone layer depletion) and their in-class practices were investigated. In this study, the TPACK of the science teachers candidates, more specifically their CK, PK, and TK, was examined. Karakaya (2012) found that the perceptions of the teachers' CK, nature of science, and scientific research within the scope of global environmental problems were emerging, yet they had general misconceptions in the content. The TPACK and TK of the science teacher candidates were sufficient; however, their knowledge about the subject-specific learning difficulties of primary school students, which is a subcomponent of PCK, along with their TCK and TPK, were very lacking.

Tokmak, Yelken and Konokman (2012) investigated various aspects of the TPACK perceptions of classroom teachers candidates. Results showed that the TPACK of the classroom teacher candidates was very good, and their interest in and access to technology, as well as their technology usage influenced their perceptions related to their TPACK in a positive way.

In the study conducted by Özgen, Narlı, and Alkan (2013) with primary and secondary education mathematics teacher candidates, frequency of technology usage of teacher candidates and their TPACK were measured. The TPACK scale (Canbazoğlu-Bilici, 2012) was used in the study. Özgen et al. (2013) discovered the frequency of technology usage by teacher candidates had a positive influence on their TK, TPK, TCK, and TPACK.

In another study conducted by Bal and Karademir (2013), the self-reported TPACK of social sciences teachers was examined. The researchers found that teachers with few years of experience and male teachers considered themselves more knowledgeable of technological; whereas teachers who had received assistance using a computer in their service training considered themselves to be more sufficient in PK, TPK, and TPACK.

The TPACK competence of chemistry teachers was investigated by Karakaya (2013). Chemistry teachers working at schools involved in

the Movement of Enhancing Opportunities and Improving Technology [MEOIT] Project were chosen to participate in the study, and data were collected on the TPACK scale (Canbazoğlu-Bilici, 2012) and from focus group discussions. It was determined that the chemistry teachers did not incorporate technological innovations into their instruction and their TPACK self-efficacy levels were low.

Changes in the educational curriculum in Turkey were meant to parallel the rapid technological developments occurring around the world (Karakaya, 2013). The integration of technological devices and equipment into the instruction is a significant aspect of effective teaching (Pierson2001). Teachers' competence to use instructional technologies (such as smart board, computers, simulation software, scientific measuring devices, probe ware) and integrate them into the teaching process became the main topic of conversation with the developing technologies (Canbazoğlu-Bilici, 2012). Within this context, it has been emphasized that teachers should have sufficient TPACK in order to effectively integrate technology into the teaching process and provide teaching 21stcentury education (Mishra & Koehler, 2006). A literature review conducted in Turkey by Baran and Canbazoğlu-Bilici (2015) revealed that teacher candidates were the chosen participants in 80% of the TPACK studies. When the meta-synthesis conducted by Kaleli Yılmaz (2015) was complete, no study that measured the TPACK of science teachers was found. For this reason, with this study, deficiencies will be tried to be eliminated. This study measure the different aspects of TPACK of in-service science teachers. Thus, in line with the information gained at the end of this study technologic pedagogic content knowledge of science teacher will be determined and under the light of the results of this study, suggestions regarding the elimination of TPACK will be provided.

Method

In this study, it is aimed to examine the competence on technologic and pedagogic content knowledge of science teachers from different variables. For this reason, this study is a descriptive one. In this study, the survey method was employed to investigate the science teachers' level of technological pedagogical content knowledge (TPACK) levels in terms of different variables. Survey model gives quantitative data about the social world and describes the views of the social world.

Study Group

Participants of the study consisting of 158 science teachers who worked at secondary schools in the city centers of Giresun, Ordu, and Erzurum in Turkey that were determined with criterion sampling which

is a kind of teleological illustration. This illustration method can be constituted with people whose observation units have some definite units, events, objects or situations in the researches (Büyüköztürk et al. 2010). External validity is aimed to achieve by suggesting to remake the results at the end of the study by another researcher with the same method over another sampling. Demographic informations related to the study participants are shown in Table 1.

Table 1 Demographic information of science teachers who forms the study group

		N	%
Gender	Male	79	50
	Female	79	50
Years of seniority	1-5	26	16,5
	5-10	41	25,9
	10-15	35	22,2
	15 and more	56	35,4
Educational background	Associate's degree	5	3,2
	Undergraduate	142	89,9
	Graduate	10	6,3
	Doctorate	1	0,6
Graduation	Physics	20	12,7
	Chemistry	19	12
	Biology	17	10,8
	Science	102	64,6
Did you take a course related to Educational Technology?	Yes	120	75,9
	No	38	4,1
Do you have a computer you always use and which belongs to you?	Yes	151	95,6
	No	7	4,4
Your level of computer usage	Beginner	4	2,5
	Medium	61	38,6
	Good	83	52,5
	Advanced	10	6,3
Time of computer using	Less than 1 hour in a day	50	31,6
	1-3 hours in a day	72	45,6
	Less than 4 hours in a day	16	0,1
	1-3 hours in a week	17	10,8
	1-3 hours in a month	3	1,9

Internet access place	Home	130	82,3
	School	27	17,1
	Teacher's house	1	0,6

When Table 1 is examined, it can be seen that 79 (50%) teachers are male and 79 (50%) teachers are female. Their years of experience in teaching are 1–5 (16.5%), 5–10 (25.9%), 10–15 (22.2%), and more than 15(35.4%). Five (3.2%) teachers had an associate's degree, 142 (89.9%) teachers had an undergraduate degree, and 11 (6.9%) teachers had graduate or doctorate degrees. Twenty (12.7%) of them graduated from the department of physics, 19 (12%) of them graduated from chemistry, 12 (10.8%) of them graduated from biology, and 102 (64.6%) of them graduated from department of science teaching. The number of teachers who took courses related to educational technologies was 120(75.9%), while38 (4.1%) teachers did not take courses related to educational technologies. The number of teachers who reported having and always using a personal computer was 151 (95.6%), while 7 (4.4%) teachers reported not having a personal computer. In addition, 4 (2.5%) teachers were at the beginner level, 61 (38.6%) teachers were at the intermediate level, 83 (52.5%) teachers were above intermediate level and 10 (6.3%) teachers were at the advanced level in terms of computer usage. With respect to how often they used computers, 50 (31.6%) teachers used computers less than 1 hour per day, 72 (45.6%) teachers used computers 1–3 hours per day, 16 (0.1%) teachers used computers more than 4 hours per day, 17 (10.8%) teachers used computers 1–3 hours per week, and 3 (1.9%) teachers used computers 1–3 hours per month. When asked where they accessed the Internet, 130 (82.3%) teachers reported accessing the Internet from home, 27 (17.1%) teachers accessed the Internet from school, and 1 (0.6%) teacher accessed the Internet from another teacher's house.

Data Collection Tool

The TPACK self-efficacy scale (Canbazoğlu-Bilici, 2012) was used as the data collection tool in this study. The first section of the scale is related to the demographic information of the participants. The second section of the scale consists of items about the frequency of internet and educational technologies usage. The third section of the study consists of the TPACK self-efficacy scale. The TPACK self-efficacy scale includes 8 sub-dimensions. Table 2 shows the sub-dimensions of this scale. The third section of the scale consists of items about the self-sufficiency of TPACK. The reliability of the scale used in this research is calculated as ,98 cronbach alpha by Canbazoğlu-Bilici (2012).

Table 2. Distribution of TPACK self-efficacy scale items according to the sub-dimensions

Sub-dimensions	Item Numbers in the Scale
Pedagogical Knowledge (PK)	1-8
Content Knowledge (CK)	9-14
Pedagogical Content Knowledge (PCK)	15-24
Technological Knowledge (TK)	25-30
Technological Content Knowledge (TCK)	31-34
Technological Pedagogical Knowledge (TPK)	35-41
Technological Pedagogical Content Knowledge (TPACK)	42-47
Content Knowledge (CK)	48-52

Analysis of the Data

After the data collection process, the data were analyzed with SPSS (18.0). Data collected from the teachers were analyzed with Kay Kare, an objective *t* test, a one-way ANOVA, and a Pearson correlation test. Furthermore, descriptive average, standard deviation, percentage and frequency values are analyzed through benefitting from descriptive statistics method.

Findings

Table 3 shows the educational technology usage frequency of science teachers.

Table 3. Educational technology usage frequency of science teachers

		Never		Seldom		Sometimes		Often		Always		No idea	
		N	%	N	%	N	%	N	%	N	%	N	%
1.	Blog (WordPress, blogger etc.)	67	42,44	37	23,4	27	17,7	5	3,2	2	1,3	19	12
2.	Place bookmarking (delicious etc.)	53	33,5	40	25,3	40	25,3	10	6,3	11	7	4	2,5
3.	Photograph sharing (Flickr etc.)	26 26 16,5 26 16,5	16,5	45	28,5	53	33,5	21	13,3	12	7,6	1	0,6
4.	Video sharing (YouTube etc.)	50	31,5	42	26,6	41	25,9	18	11,4	7	4,4	0	0

5.	Status sharing (twitter etc.)	60	38	32	20,3	41	25,9	17	10,8	7	4,4	1	0,6
6.	File sharing (Google Docs etc.)	29	18,4	40	25,3	55	34,8	25	15,88	8	5,1	1	0,6
7.	Social networking (Facebook etc.)	30	19	12	7,6	48	30,4	40	25,3	27	17,1	1	0,6
8.	Wiki (Wikipedia)	42	26,6	31	19,6	40	25,330	30	19	12	7,6	3	1,9
9.	Podcast	65	41,1	22	13,9	28	17,7	3	1,9	6	3,8	34	21,5
10.	e-mail	8	5,1	21	13,3	46	29,1	38	24,1	45	28,5	0	0
11.	Instant messaging (msn, google talk etc.)	16	10,1	38	24,1	30	19	40	25,3	33	20,9	1	0,6
12.	Learning managing systems (Moodle,Blackboard, WebCTetc.)	42	26,6	28	17,7	46	29,1	17	10,8	8	5,1	17	10,8
13.	Published materials (Book, magazine etc.)	10	6,3	13	8,2	34	21,5	52	32,9	49	31	0	0
14.	Wall panel	20	12,7	40	25,3	47	29,7	36	22,8	14	8,9	1	0,6
15.	TV	18	11,4	36	22,8	45	28,5	35	22,2	24	15,2	0	0
16.	Computer	2	1,3	6	3,8	30	19	67	42,4	53	33,5	0	0
17.	Scanner	20	12,7	52	32,9	43	27,2	29	18,4	14	8,9	0	0
18.	Printer	1	0,6	20	12,7	40	25,3	47	29,7	50	31,6	0	0
19.	CD	23	14,6	57	36,1	51	32,3	17	10,8	10	6,3	0	0
20.	DVD	34	21,5	61	38,6	43	27,2	11	7	9	5,7	0	0
21.	Digital camera	26	16,5	59	37,3	44	27,8	19	12	10	6,3	0	0
22.	Camera	20	12,7	42	26,6	54	34,2	31	19,6	11	7	0	0
23.	Calculator	25	15,2	53	33,5	55	34,8	15	9,5	11	7	0	0
24.	Educational Softwares (Softwares in MoNE Vitamin platform, softwares run from from CDs etc.)	3	1,9	15	9,5	39	24,7	42	26,6	58	36,7	1	0,6
25.	Electronic tabulation (MS Excel etc.)	17	10,8	38	24,1	50	31,6	32	20,3	20	12,7	1	0,6
26.	Word processor (MS Word etc.)	16	10,1	26	16,5	38	24,1	41	25,9	36	22,8	1	0,6
27.	Presentation making (MSPowerPoint etc.)	12	7,6	33	20,9	62	39,2	29	18,4	21	13,3	1	0,6
28.	Desktop publishing (MS Publisher etc.)	47	29,7	33	20,9	35	22,2	18	11,4	9	5,7	16	10,1
29.	Image composer (Paint, Adobe Photoshopetc.)	25	15,8	47	29,7	45	28,5	26	16,5	13	8,2	2	1,2
30.	Graphic animation preparation (Adobe Flash etc.)	65	41,1	52	32,9	24	15,2	11	7	4	2,5	2	1,3
31.	Simulation softwares (Chemistry experiment simulations etc.)	59	37,3	38	24,1	36	22,8	18	11,4	6	3,8	1	0,6

It is clear from Table 3 that science teachers use published materials, computers, educational software (e.g., software in MoNE Vitamin platform, software on CDs), social networking sites, and TV. However, the teachers reported that they do not use educational technologies, such as CDs, DVDs, digital cameras, social media, scanners, simulation software (e.g., chemistry experiment simulations), or graphic animation preparation (e.g., Adobe Flash) to a large extent. Kay Kare test is applied to determine if there is a gender difference in the frequency of using these training technologies among science teachers. The data gathered at the end of the study is shown in Table 4.

Table 4. Distribution of educational technology usage frequency of science teachers based on the genders and chi-square analysis results

	Never/seldom		Some times		Often		Always		No idea	
	F	M	F	M	F	M	F	M	X^2	P
1. Blog (WordPress, blogger etc.)	52	52	12	16	2	5	13	6	6,399	,269
2. Place bookmarking (delicious etc.)	44	39	22	18	6	8	7	4	5,88	,317
3. Photograph sharing (Flickr etc.)	21	40	29	24	18	15	1	0	5,47	,360
4. Video sharing (YouTube etc.)	44	48	20	21	15	10	0	0	2,548	,636
5. Status sharing (twitter etc.)	43	49	23	18	1	7	0	1	9,189	,102
6. File sharing (GoogleDocs etc.)	27	32	29	26	12	21	1	0	6,434	,266
7. Social networking (Facebook etc.)	19	23	26	22	34	33	0	1	3,600	,608
8. Wiki (Wikipedia)	34	39	39	31	23	19	2	1	4,21	,519
9. Podcast	40	47	14	14	4	5	21	13	2,78	,734
10. e-mail	18	11	20	26	41	42	0	0	3,45	,486
11. Instant messaging (msn, google talk etc.)	25	29	11	19	43	30	0	1	9,11	,104
12. Learning managing systems (Moodle, Blackboard, WebCTetc.)	35	25	23	23	12	13	9	8	1,07	,957
13. Published materials (Book, magazine etc.)	7	16	14	20	58	43	0	0	6,81	,146
14. Wall panel	22	38	28	19	28	22	1	0	8,12	,150
15. TV	30	24	17	28	32	27	0	0	4,38	,357
16. Computer	3	5	18	12	58	62	0	0	3,38	,496
17. Scanner	38	24	20	23	21	22	0	0	5,17	,270
18. Printer	11	10	19	21	49	48	0	0	2,15	,708
19. CD	41	39	27	24	11	16	0	0	5,08	,279
20. DVD	52	33	22	21	5	15	0	0	8,03	,090
21. Digital camera	48	37	18	26	13	16	0	0	5,15	,271

22.	Camera	34	28	24	30	21	21	0	0	2,67	,614
23.	Calculator	43	34	28	27	8	18	0	0	9,11	,058
24.	Educational Softwares (Softwares in MoNE Vitamin platform, softwares run from CDs etc.)	8	10	20	19	28	31	0	1	4,54	,474
25.	Electronic tabulation (MS Excel) 9 etc.)	38	17	22	28	18	34	1	0	16,39	,006
26.	Word processor (MS Word etc.)	28	14	14	24	36	41	1	0	8,67	,123
27.	Presentation making (MSPowerPoint) etc.)	24	21	35	27	19	31	1	0	5,50	,358
28.	Desktop publishing (MS Publisher etc.)	37	43	20	15	12	15	10	6	3,49	,624
29.	Image composer (Paint, Adobe Photoshopetc.)	39	33	27	18	11	28	1	0	22,78	,001
30.	Graphic animation preparation (Adobe Flash etc.)	61	56	11	13	5	10	2	0	7,8	,167
31.	Simulationsoftwares (Chemistry experiment simulations etc.)	45	52	23	13	10	14	1	0	5,24	,387

When Table 4 is examined, it can be seen that the frequency of using the electronic tabulation (e.g., MS Excel), image composing (e.g., Paint, Adobe Photoshop) and educational technology is statistically much more among male science teachers than female science teachers. Except from these technologies there is not a statistically significant difference in educational technology usage frequencies of science teachers based on the genders. Again, the percentage of the scale to determine the TPACK self-efficacy of science teachers are presented in Table 5

Table 5. TPACK self-efficacy percentages of science teachers

No	Sub-dimensions	Item	I definitely do not believe that I can do it	I partly believe that I can do it	I definitely believe that I can do it
1	PK	Paying attention to the individual differences in the teaching process	6,3	43	50,6
2	PK	Taking necessary precautions against the negative behaviors that could be encountered in the classroom	6,3	32,9	60,8
3	PK	Managing the class in an effective way	8,2	19,6	72,2
4	PK	Preparing the assessment tool appropriate to the objective	4,4	30,4	64,6

5	PK	Scoring the assessment tool appropriate to the objective	4,4	30,4	65,2
6	PK	Using the teaching strategies in an effective way	3,8	38	58,2
7	PK	Using the teaching methods in an effective way	5,7	32,3	62
8	PK	Paying attention to the individual features in the teaching process	4,4	42,4	53,2
9	CK	Explaining the basic concepts of chemistry	6,3	24,1	69,6
10	CK	Explaining the basic concepts of physics	6,3	25,3	68,4
11	CK	Explaining the basic concepts of biology	5,7	20,3	74,1
12	CK	Explaining the basic concepts of earth sciences	5,7	44,3	50
13	CK	Explaining the basic concepts of astronomy	7,6	46,2	46,2
14	CK	Interdisciplinary (physics, chemistry, biology etc.) association of science concepts	6,3	17,7	75,9
15	PCK	Teaching science and technology lessons appropriate to the theoretical basics of curriculum	5,7	31	63,3
16	PCK	Explaining the contents of science subjects in the curriculum	7,6	26,6	65,8
17	PCK	Selecting appropriate teaching strategies for science subjects	7	28,5	64,6
18	PCK	Selecting appropriate teaching methods for science subjects	7	25,9	67,1
19	PCK	Explaining the learning difficulties of students about a specific science subject	5,7	32,3	62
20	PCK	Explaining the misconceptions of students about a specific science subject	7,6	24,1	68,4
21	PCK	Supporting students for making research related to science subjects	6,3	34,2	59,5
22	PCK	Selecting assessment tools appropriate to subject when evaluating teaching-learning process	5,1	31,6	63,3
23	PCK	Deciding on which concepts should be evaluated in terms of a specific science subject	5,1	25,9	69
24	PCK	Deciding on which skills should be evaluated in terms of a specific science subject	5,7	30,4	63,9
25	TK	Explaining the differences between software and hardware	4,4	88	7,6
26	TK	Solving technical problems of technological devices' (computer, data projection device etc.) hardware	28,5	55,1	16,5
27	TK	Installing the softwares used in the technological devices	21,5	56,3	22,2
28	TK	Using the softwares installed in the technological devices	10,8	58,2	31
29	TK	Selecting technological devices appropriate for the needs	7	42,4	50,6
30	TK	Explaining the similarities between the hardware and software	21,5	59,5	19
31	TCK	Preparing the models used in the science teaching process by using technological devices (flash animation, graphic programs etc.)	17,1	57	25,9

32	TCK	Making use of technological devices (pH meter, ammeter etc.) for collecting experiment data	12	33,5	54,4
33	TCK	Using technological tools (MS Excel, calculator etc.) for the analysis of the experiment data	10,8	46,2	42,4
34	TCK	Explaining the advantages of using technological tools in science teaching	5,1	35,4	59,5
35	TPK	Selecting the technological tools appropriate to the levels of students	5,1	36,7	58,2
36	TPK	Including how to benefit from technology in the lesson plan	3,8	39,9	55,7
37	TPK	Explaining how to manage a classroom equipped with technological devices	2,5	42,4	55,1
38	TPK	Providing answer to the student questions in a lesson process during which technology is used	4,4	38	57,6
39	TPK	Making use of technological devices in order to make the teaching process more effective	4,4	36,1	59,5
40	TPK	Explaining how the technology affects the teaching-learning process	5,7	35,4	58,9
41	TPK	Evaluating students in a lesson process during which technology is used	5,7	38	56,3
42	TPACK	Using technological tools to determine the misconceptions of students related to the science subjects	5,7	45,6	48,7
43	TPACK	Using technology aided assessment tools appropriate to science subjects while evaluating the teaching-learning process. teaching-learning process	5,1	47,5	47,5
44	TPACK	Creating an effective learning environment in science and technology lesson by using technology, pedagogy and content knowledge together	3,8	39,9	56,3
45	TPACK	Preparing a lesson plan by using technology, pedagogy and content knowledge together in science and technology lesson	7	40,5	52,5
46	TPACK	Making use of technological tools to determine the preliminary knowledge of students related to the science subjects	4,4	41,8	53,8
47	TPACK	Making use of technological tools to determine the misconception of students related to the science subjects	5,1	42,4	52,5
48	CK	Paying attention to the demographic information (educational level of the family, income level, number of siblings) of the students during science teaching process	8,2	46,2	45,6
49	CK	Paying attention to the physical characteristics (technological equipment, wideness of the place etc.) of classroom environment during the science teaching process	5,7	34,2	60,1
50	CK	Paying attention to the characteristics of the society in the region where the school is located during science teaching process	7,6	37,3	55,1

51	CK	Helping colleagues to use their technology, pedagogy and content knowledge together	7	48,7	44,3
52	CK	Paying attention to the characteristics of the environment where students live during the science teaching process	7,6	32,9	59,5
Average frequency			7,36	38,32	54,32

When Table 5 is examined, it could be seen that most of the teachers have TPACK self-efficacy Pedagogic Knowledge, Content Knowledge, Pedagogic Content Knowledge, Technologic Knowledge, Technologic Content Knowledge, Technologic Pedagogic Knowledge and Technologic Pedagogic Content Knowledge and believe that they can definitely success it. An Independent sample *t* test was conducted to determine whether TPACK self-efficacy sub-dimensions and overall scores change according to gender. The data gathered at the end of the study is shown in Table 6.

Table 6. Independent samples t test results of science teachers' TPACK self-efficacy sub-dimensions and their total score changes according to genders

	Gender	N	$\bar{x}$	S.S	S.D	t	P
PK	Woman	79	20,68	3,51	156	,795	,428
	Man	79	20,20	4,07			
CK	Woman	79	15,87	2,83	156	1,75	,082
	Man	79	15,05	3,06			
PCK	Woman	79	26,44	4,92	156	1,50	,135
	Man	79	25,24	5,12			
TK	Woman	79	12,0	2,42	156	-2,56	,011
	Man	79	13,06	2,77			
TCK	Woman	79	9,27	1,86	156	-1,12	,262
	Man	79	9,86	4,20			
TPK	Woman	79	18,03	4,97	156	,423	,673
	Man	79	17,74	3,57			
TPACK	Woman	79	14,78	2,78	156	-,083	,934
	Man	79	14,82	2,96			
CK	Woman	79	12,60	2,59	156	1,56	,120
	Man	79	11,93	2,73			
TOTAL	Woman	79	129,53	19,87	156	,475	,635
	Man	79	127,92	22,56			

When data in Table 6 is examined, it can be seen that the mean of the TK sub-dimension for the male science teachers was13.06, which was statistically significantly different from the mean of the women science

teachers (12) (t= -2, 56; p= 0, 011). Furthermore, an independent samples *t* test was conducted to compare the mean scores on TPACK self-efficacy sub-dimensions and overall scores of the science teachers with respect to their educational backgrounds. The data gathered at the end of the study is shown in Table 7.

Table 7. Independent samples t test results of science teachers' TPACK self-efficacy sub-dimensions and their total score changes according to the educational background

	Educational background	N	$\bar{x}$	S.S	S.D	T	p
PK	Undergraduate	147	20,39	3,87	156	-,58	,55
	Graduate	11	21,09	2,58			
CK	Undergraduate	147	15,43	3,03	156	-,41	,68
	Graduate	11	15,81	1,99			
PCK	Undergraduate	147	25,72	5,11	156	-1,03	,30
	Graduate	11	27,36	3,88			
TK	Undergraduate	147	12,49	2,63	156	-,60	,54
	Graduate	11	13,00	2,96			
TCK	Undergraduate	147	9,59	3,33	156	,31	,75
	Graduate	11	9,27	1,84			
TPK	Undergraduate	147	17,78	4,41	156	-1,10	,27
	Graduate	11	19,27	2,45			
TPACK	Undergraduate	147	14,70	2,90	156	-1,55	,12
	Graduate	11	16,09	2,02			
CK	Undergraduate	147	12,19	2,72	156	-1,17	,24
	Graduate	11	13,18	1,88			
TOTAL	Undergraduate	147	128,24	21,51	156	-1,032	,30
	Graduate	11	135,09	16,23			

The differences between the means of the TPACK self-efficacy sub-dimensions were not statistically significant (p>0.05) in light of the teachers' educational backgrounds. Again, an independent samples *t* test was conducted to determine whether the mean scores on TPACK self-efficacy sub-dimensions and overall scores change among the science teachers who took in service training course and those who did not. The results are shown in Table 8.

Table 8. Independent samples t test results of science teachers' TPACK self-efficacy sub-dimensions and their total score changes according to the course taking status

	Course Taking Status	N	x̄	S.S	S.D	t	p
PK	Yes	120	20,78	3,71	156	2,02	,045
	No	38	19,36	3,92			
CK	Yes	120	15,58	2,94	156	,911	,364
	No	38	15,07	3,05			
PCK	Yes	120	26,12	5,12	156	1,25	,211
	No	38	24,94	4,73			
TK	Yes	120	12,69	2,64	156	1,35	,179
	No	38	12,02	2,65			
TCK	Yes	120	9,86	3,51	156	2,06	,041
	No	38	8,63	1,99			
TPK	Yes	120	18,43	4,46	156	2,86	,005
	No	38	16,18	3,33			
TPACK	Yes	120	15,10	2,80	156	2,40	,017
	No	38	13,84	2,87			
CK	Yes	120	12,49	2,66	156	1,90	,058
	No	38	11,55	2,62			
TOTAL	Yes	120	130,99	21,24	156	2,40	,017
	No	38	121,63	19,75			

When Table 8 is examined, it was found that the mean scores of PK, TCK, TPK and TPACK sub-dimensions were statistically significantly higher (p<0.05) for the teachers who took the course when compared to the teachers who did not take the course, however CK, PCK and CK sub-dimensions are not statistically significant. An independent samples *t* test was conducted to compare the mean scores on TPACK self-efficacy sub-dimensions and overall scores of the science teachers with respect to their computer owning status. The results of the tests are shown in the Table 9.

Table 9. Independent samples t test results of science teachers' TPACK self-efficacy sub-dimensions and their total score changes according to the computer owning status

	Do you have a computer that you can always use?	N	x̄	S.S	S.D	T	p
PK	Yes	151	20,54	3,69	156	1,64	,102
	No	7	18,14	5,45			
CK	Yes	151	15,56	2,88	156	2,00	,047
	No	7	13,28	4,11			

PCK	Yes	151	25,93	5,01	156	1,06	,289
	No	7	23,83	5,75			
TK	Yes	151	12,51	2,63	156	-0,33	,741
	No	7	12,85	3,23			
TCK	Yes	151	9,66	3,26	156	1,79	,075
	No	7	87,42	1,98			
TPK	Yes	151	18,04	4,28	156	2,10	,037
	No	7	14,57	3,90			
TPACK	Yes	151	14,90	2,81	156	2,13	,035
	No	7	12,57	3,25			
CK	Yes	151	12,32	2,67	156	1,28	,201
	No	7	11,00	2,51			
TOTAL	Yes	151	129,42	21,00	156	1,93	,055
	No	7	113,71	21,84			

When Table 9 is examined, it can be seen that average points on TPK, CK and TPCK sub-dimensions of teachers who have a computer are statistically higher than those who don't have a computer, however PK, PCK, TK, TCK and CK sub-dimensions and overall scores are highly different. An independent samples *t* test was conducted to compare the science teachers' mean scores on TPACK self-efficacy sub-dimensions and overall scores with respect to their computer usage levels. The results are shown in the Table 10.

Table 10. Independent samples t test results of science teachers' TPACK self-efficacy sub-dimensions and their total score changes according to the computer usage level

PK	Computer Usage Level	N	$\bar{x}$	S.S	S.D	T	p
CK	Medium	65	20,32	3,65	156	-,33	,74
	Good	93	20,52	3,91			
PCK	Medium	65	15,29	3,18	156	-,59	,55
	Good	93	15,58	2,82			
TK	Medium	65	11,64	2,49	156	-,50	,61
	Good	93	11,64	2,59			
TCK	Medium	65	13,15	4,50	156	-3,64	,0045
	Good	93	9,33	1,96			
TPK	Medium	65	16,92	3,69	156	-,74	,018
	Good	93	18,56	4,60			
TPACK	Medium	65	14,20	3,00	156	-2,39	,026
	Good	93	15,22	2,70			
CK	Medium	65	12,13	2,69	156	-2,24	,61
	Good	93	12,35	2,67			
TOTAL	Medium	65	125,46	21,92	156	-,50	,10
	Good	93	131,03	20,51			

When Table 10 is examined, results show that while there are statistically significant differences on the TK, TCK and TPK sub-dimensions (p<0.05) between teachers who have a good computer usage levels, there are no statistically significant differences on other sub-dimensions. Correlation analyses were conducted on the science teachers' TPACK self-efficacy sub-dimensions, their overall scores, and their years of teaching experience (see Table 11).

Table 11. Correlation between the points that science teachers got from TPACK self-efficacy sub-dimensions along with the total and their years of seniority

	PK	CK	PCK	TK	TCK	TPK	TPACK	CK	TOTAL
N	158	158	158	158	158	158	158	158	158
Coefficient of Correlation	-,37	-,66	-,20	-,15	0,39	-,83	-,12	-,45	-,80
P	,64	,41	,80	,04	,62	,30	,10	,57	,32

Results showed the years of teaching experience to have a weak positive correlation to the TCK sub-dimension, a weak negative correlation to the PK, TK, and TPACK sub-dimensions, a high level negative correlation to the CK and TPK sub-dimensions, and a moderate negative correlation to the CK sub-dimension. It can also be seen that only correlation belonging to Technological knowledge (TK) among the other sub-dimensions is statistically meaningful (p<0, 05).Again, one way ANOVA was applied in order to determine whether there is a difference between working years of TPACK self-efficiency sub-dimensions and overall points of science teachers. ANOVA results are given in Table 12.

Table 12. One way ANOVA analysis results of the points gathered from TPCK self-efficiency sub- dimensions

TPACK Self Efficieny		Sum of Squares	SD	Mean squares	F	p
PK	Betweengroups	35,481	3	11,827	0,816	,487
	Within groups	2231,506	154	14,490		
	Total	2266,987	157			
CK	Betweengroups	27,18	3	9,059	1,026	,383
	Within groups	1360,095	154	8,832		
	Total	1387,272	157			
PCK	Betweengroups	30,415	3	10,138	0,394	,758
	Within groups	1360,095	154	8,832		
	Total	1387,272	157			
TK	Betweengroups	56,278	3	18,759	2,754	,045*
	Within groups	1049,064	154	6,812		
	Total	1105,342	157			

TCK	Between groups	8,459	3	2,820	0,263	,852
	Within groups	1652,275	154	10,729		
	Total	1660,734	157			
TPK	Between groups	39,428	3	13,143	0,701	,553
	Within groups	2887,743	154	18,752		
	Total	2927,171	157			
TPACK	Between groups	35,004	3	11,668	1,431	,236
	Within groups	1255,914	154	8,155		
	Total	1290,918	157			
CK	Between groups	3,983	3	1,328	0,182	,908
	Within groups	1114,781	154	7,286		
	Total	1118,764	157			
TOTAL	Between groups	1284,248	3	428,083	0,418	,908
	Within groups	68956,975	154	450,699		
	Total	70241,223	157			

When One Way ANOVA analysis results of the points gathered from TPACK self-efficiency sub- dimensions are analyzed, it can be seen that the teaching experience of science teachersis not statistically significant among average points on the sub dimensions of PCK, CK, TPACK, PK, TCK and TPK, however there is a statistically significant difference among the average points of TK sub dimension. Games-Howell post hoc test was applied to determine in what experience years that this difference stemmed from. When this test is analyzed, it is determined that 1-5 years experienced teachers are statistically more meaningful results than those who have 15 years and above experience (the difference between avarages =1,61538 ; S.H=,61094; $p<0,05$).

Results and Discussion

This study was conducted with the aim of determining the technological pedagogical content knowledge competence of science teachers. As a result of the study, it was determined that science teachers consistently use published materials, computer, educational software (e.g., software in Minisrty of National Education [MoNE] Vitamin platform, software on CDs), social networking sites, and TV. However, teachers do not use educational technologies such as CDs, DVDs, digital cameras, social media, scanners, simulation software (e.g., chemistry experiment simulations), or graphic animation preparation (e.g., Adobe Flash) to a large extent. These findings are similar to those from Karakaya's (2013) study with chemistry teachers: new educational technologies, such as

blogs, web page bookmarking, social media, podcasts, learning managing systems, and graphic animation preparation programs were never or seldom used by the teacher participants.

A statistically significant difference in the educational technology usage frequencies of science teachers was not encountered between males and females except for electronic tabulation (e.g., MS Excel) and image composing (e.g., Paint, Adobe Photoshop) educational technologies. This result is similar with the results of the study conducted by Karakaya (2013) who also determined difference in electronic tabulation and image composing software use based on genders. However, Karakaya (2013) studied chemistry teachers and stated that female teachers tend to use electronic tabulation and image composing software more than males, whereas male science teachers seem to use mentioned technologies more in this study.

In general, mean self-efficacy scores of male teachers were statistically significantly higher than those of the female teachers on the TK sub-dimension of TPACK. Based on this result, the researcher concludes that the TK of male science teachers is greater than the TK of female science teachers. In the study conducted with social science teachers by Bal and Karademir (2013), it was understood that male teachers whose years of teaching experience were few considered themselves more knowledgeable in technological than their female counterparts. Likewise, findings in Karatas's (2014) study conducted with high school teachers and Canbolat's (2011)study conducted with mathematics teacher candidates indicate that male teachers consider themselves more qualityin terms of technology knowledge. Therefore, the researcher concludes that the results of the aforementioned studies are in conformity with the results of this present study, which was conducted with science teachers. This phenomenon could be viewed as the natural outcome of the more frequent use of computers by young, male teachers. However, findings of Karakaya's (2013) study conducted with chemistry teachers revealed no significant difference on TPACK self-efficacy between male and female teachers. In light of the discrepancies between findings from studies conducted with high school and secondary school teachers in other subjects the same TPACK self-efficacy of chemistry teachers could be considered a topic of future research.

Furthermore, it was determined in this study that the mean scores on PK, TCK, TPK, and TPACK sub-dimensions of teachers who took an in service training course statistically significantly higher than the mean scores of teachers who did not take a course. These results suggest that in-service training on technology contributes to the TCK, TPK, and TPACK of science teachers. This agrees with the conclusion obtained

from the studies conducted previously (Guzey & Roehrig, 2009; Kokoç, 2012; Lehiste, 2015). Guzey and Roehrig (2009) found that professional development programs have a positive influence on TPACK of secondary school science teachers. In Kokoç's (2012) study, which investigated the TPACK development processes of classroom teachers, found that professional development increases the TPACK, with the highest increase in TK, of the participants. Lehiste (2015) also reported a significant increase in teachers' TPACK (all sub-dimensions) following an in-service TPACK-specific training program, with the highest increase in TK and TPACK. On the other hand, Karakaya (2013) found that the PK of teachers was positively influenced by completing a course in their teacher preparation programs.

In conclusion, it was discovered that science teachers who have a computer can consistently have greater self-efficacy in TPK and TPACK sub-dimensions than teachers who do not have frequent computer access .With this in mind, it can be inferred that computer usage improves the TPK and TPACK of teachers. The findings of this study are consistent with those from previous studies (Karataş, 2014; Özgen, Narlı, & Alkan, 2013; Schmidt, et al. 2009). Schmidt et al.'s (2009) study aimed to monitor the development of TPACK levels of teacher candidates throughout the lessons in which information technologies were used. They reported an increase in all the sub-dimensions of TPACK of the teacher candidates who participated in the study with the highest increase in TK, TCK, and TPACK. In the study conducted with primary and secondary education mathematics teacher candidates, Özgen, Narlı & Alkan (2013) revealed that technology usage had a positive influence on the participants' TPACK. Therefore, it could be concluded that increasing the usage of information technologies can positively contribute to teachers' and teacher candidates' self-efficacy in TPACK and its sub-dimensions. However, in the study carried out with chemistry teachers by Karakaya (2013), it was determined that having a computer does not have any effect on the TPACK self-efficacy. The results of this study differ from the results of Karakaya's (2013) study.

The researcher found that teachers who use a computer at a good level have higher self-efficacy in TCK and TPK. Also, using computers improves TPK and TPACK of the teachers. These conclusions are consistent with the results of the study conducted with teacher candidates by Özgen, Narlı & Alkan (2013). In addition, these conclusions are also consistent with those based on the results of the study carried out with high school teachers by Karataş (2014), which reported that teachers consider themselves more confident and knowledgeable in TPACK when

their computer usage level is high. The results of this study is parallel with Karakaya (2013)'s study.

In the study, a weak positive correlation was found between the scores on the TPACK sub-dimension and the years of teaching experience, and a weak negative correlation was found between the scores taken on the PK, TK, TPACK sub-dimensions and the years of teaching. Furthermore, when TPACK self- sufficiency average points and experience years are compared it is determined that teachers who have less working experience (1-5 years) have statistically more significant results on Technologic Knowledge (TK) sub dimension than teachers who have more working experience (15 years and above). While there was only one statistically significant correlation ($p<,05$) pertaining to TK, which his consistent with the findings of the study conducted by Karakaya (2013), there were correlations among the other sub-dimensions. When these results are taken into consideration, it can be concluded that the TK of science teachers with few years of teaching experience is much greater when compared to the TK of science teachers with many years of teaching experience. This is consistent with the findings of the studies carried out by Karataş (2014).

Based on the results of the present study, the following recommendations are made:

1. Training courses should be provided for in-service and pre-service teachers regarding how to implement technology to the courses.

2. Teachers who have a medium computer usage level should be encouraged by their managers in order to develop their skill in computer usage.

3. Trainings should be scheduled at regular intervals to promote the use of technology, especially information technologies, more effectively.

4. Especially, female teachers should be directed to in-service training relating to technology usage so that they can use technology more effectively.

5. The courses may be given by computer teachers in order for the science teachers to use teaching technologies such as Simulation Software and preparing animations better.

6. It is suggested that this study should be repeated on different samples and compared the gathered results.

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Chapter 12

EDUCATIONAL DIAGNOSIS AND GUIDANCE AND PSYCHOLOGICAL COUNSELING SERVICES

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Introduction

Having diagnosed their child with a disability is expressed as a traumatic situation for parents. When parents learn that their children are disabled, their lives can be negatively affected. After the diagnosis, parents react such as not accepting the child's disability, feeling guilty, and acting overly protective. Having a disabled child can cause parents to experience feelings such as denial, anger, guilt, anxiety, and disappointment. From the moment parents learn that they will have a disabled child, they encounter many problems in their lives and have difficulty in solving them. Guidance and Research Centers provide guidance and psychological counseling services to parents in solving these problems. One of the important tasks is educational assessment and diagnosis.

Individuals are generally different from each other in terms of physical, mental, and emotional characteristics. In addition to the innate differences, the environment-related upbringing and educational situations and the diversity of lives increase the differences among people. Although each individual has different characteristics, it is very important to identify individuals who differ significantly in terms of developmental characteristics compared to their peers. As a requirement of democratic understanding, individuals with special education needs should benefit from equal educational opportunities and the education to be offered and it is closely related to early and correct assessment and diagnosis. The earlier and more accurately the educational assessment and diagnosis are made, the easier it is to plan and carry out both educational applications, practices, guidance, and psychological counseling services (Baykoç Dönmez & Şahin, 2014; Cavkaytar et al., 2012 ; MEB, 2018).

Individuals with special educational needs (SEN) can be identified in various ways. The educational assessment and diagnosis of individuals with SEN in the early childhood or school period are carried out by the special education evaluation board under the Guidance and Research Centers. The first application to the Guidance and Research Center for the educational assessment and diagnosis of individuals is made by the school administration, by the individual over the age of 18 without mental disability, or by his / her parents. Besides applications of individuals, who benefit from care and accommodation services in official institutions, are carried out by the personnel appointed by the institution with an official letter (MEB, 2018).

If educational assessment and diagnosis are made accurate and earlier, other arrangements and applications become more successful. Besides, the planning and execution of the guidance and psychological counseling services offered to parents during and after the educational

assessment and diagnosis process can become easier. The Guidance and Research Centers in the city center and districts have important duties in the planning and delivery of these services (MEB, 2018).

Guidance and Research Centers

Guidance and counseling services are often offered in school environments in Turkey, under the coordination of (GRC) located in the city center and the districts. In the Directive of the Ministry of National Education Guidance and Research Center, Guidance and Research Centers are defined as the institutions that operate to plan, deliver, coordinate guidance, psychological counseling services, and special education services in provinces or districts, monitor and evaluate the services provided. GRCs consist of two departments: the guidance and psychological counseling services department and the special education services department. The guidance and psychological counseling services department fulfill its duties in psychosocial support, school guidance, psychological counseling, individual and group counseling, guidance, research, and development. The special education services department fulfills its duties in educational assessment and diagnosis, identification of individuals with a special talent, monitoring, research, and development (MEB, 2020).

GRCs have duties for children with SEN and their families according to the Guidance and Research Center Directive of the Ministry of National Education. These duties are offered within the scope of individual and group counseling, guidance service, and within the scope of research and development service.

Department of guidance and psychological counseling services

The guidance and psychological counseling services department consists of sufficient personnel assigned by the director of the Guidance and Research Center under the responsibility of the department head. The guidance and psychological counseling services department fulfills its duties in the areas such as school guidance and psychological counseling, psychosocial support, individual and group counseling, guidance, research, and development (MEB, 2020).

According to the Guidance and Research Center Directive of the Ministry of National Education, conducting research to determine the needs of the district, conducting new studies according to the results obtained, preparing publications on guidance and psychological counseling services, cooperating with educational institutions are duties of the department of

guidance and psychological counseling services. In addition to these, it has duties such as visiting the guidance and psychological counseling services in educational institutions; guiding psychological counselors and school administrators, organizing meetings with the psychological counselors in the guidance and psychological counseling services, and taking necessary precautions regarding the decisions taken in the meeting, organizing activities such as seminars, conferences, courses for families, psychological counselors working in guidance services, school administrators and teachers (MEB, 2020).

Special Education Services Department

The special education services department consists of sufficient staff assigned by the director of the guidance and research center under the responsibility of the department head. The special education services department fulfills its duties in educational assessment and diagnosis, identification of individuals with a special talent, monitoring, and research and development. The department of special education services generally includes services such as educational assessment and diagnosis of children who are considered to be with SEN, making recommendations regarding the schools or institutions where they will be placed, and guidance and psychological counseling services family education for the diagnosed children and their parents. The guidance and psychological counseling services offered in the special education department cover the child, the family, and the school, starting from educational assessment and diagnosis. These services are mostly carried out by special education teachers and psychological counselors (MEB, 2020).

Educational Assessment and Diagnosis

Educational assessment and diagnosis are one of the important tasks of Guidance and Research Centers. Each individual is generally different from the others in terms of physical, mental, and emotional characteristics. Inborn differences and the variety of upbringing, educational situations, and lives associated with the environment increase the difference among people. Although each individual has different characteristics, it is very important to identify individuals who differ significantly in terms of developmental characteristics compared to their peers. As a requirement of democratic understanding, individuals with SEN should benefit from equal educational opportunities and the education to be offered, and it is closely related to the early and correct identification and assessment (MEB, 2018).

Individuals requiring special education can be determined in various ways. The educational assessment and diagnosis of individuals who need

special education in the early childhood or school period are carried out by the special education evaluation board under the Guidance and Research Centers. The first application for the educational evaluation and diagnosis of individuals is made by the school administration, the parents, or by the individual over the age of 18 without mental disability to the Guidance and Research Center but for individuals, who benefit from care and accommodation services in official institutions, it is carried out by the personnel to be assigned by the institution with an official letter (MEB, 2018).

Educational assessment and diagnosis is the process of determining the individual's characteristics in all developmental areas and qualifications in academic disciplines and educational needs for educational purposes. Educational assessment, diagnosis, and guidance of individuals are carried out by the Special Education Evaluation Board established within the Guidance and Research Center. In educational assessment and diagnosis, the individual's disability health board report, cognitive, physical, mental, social development characteristics and competencies in the academic discipline, educational performance, need, duration of benefiting from educational services, and individual development report are taken into consideration.

Objective, standard tests, and measurement tools suitable for the characteristics of the individual are used in educational assessment and diagnosis. The least restrictive educational environment (LRE) or special education service is decided for the individual with SEN. This decision is a roadmap for the staff and families who will provide education services (MEB, 2018).

Decisions taken by the board about individuals with SEN require teamwork. The decisions are made as a result of teamwork in which the classroom teacher, special education teacher, school psychological counselor, psychologist, language and speech therapist, healthcare staff, parents, and, when necessary, faculty members and experts involved in the educational assessment and diagnosis. Teachers provide information to the team in areas such as students' academic performance, social and emotional characteristics, and parents provide information about the child's interaction and performance at home. Psychologists and psychological counselors take part in evaluation activities in terms of children's developmental and psychological characteristics. The opinions of experts such as speech and language therapists, physiotherapists, audiologists, occupational therapists are used when necessary. Doctors, nurses, and other healthcare professionals provide information on health and treatment related to the child (MEB, 2018).

Assessment Process

Before placing students with learning and behavioral problems in the education process into special education programs, it is necessary to evaluate the presence of disability, type, and degree of disability and special education needs. It should be planned how to determine the academic, social, behavioral, and adaptive characteristics of the students in the assessment. The assessment consists of screening/sending, diagnosis, training planning, monitoring, and program evaluation (Baykoç Dönmez & Şahin, 2014).

Screening/Sending

Screening is a gathering of information for students with learning and behavioral problems at school to make relevant decisions before they are sent to experts and organizations. Students can be subjected to screening processes individually or they can participate in the group screening process in their class. During the screening process, teacher-made tests, skill inventories, behavior checklists, curricular and extracurricular observations, and information obtained from student and parent interviews are used. Before the student is sent to the Guidance and Research Center, the teachers and specialist staff at the school should include adaptations and strategies in teaching for improvement efforts to solve the student's problem. During the screening process, the student should not be named and labeled based on the available data, and parents should be fully and actively involved in the process (573 Decree Law).

Educational Assessment and Diagnostic Process

An official application is made by the parents and the school administration for the educational assessment and diagnosis of students who have academic, behavioral, social, and emotional difficulties despite the teaching adaptations and regulations in the school environment. It is tried to determine whether the student has developmental delay or insufficiency if any, its quality and level via diagnosis process. By evaluating the students' suitability for special education services, the students' competencies, disabilities, and learning needs are determined in detail. In order to protect the rights of families and children, assessment is included, and the deficiency of the student. If any is identified and appropriate educational services and support services are provided (MEB,2018).

Individualized Education Programs (IEP) Development Process

As a result of the diagnosis process, if it is decided that the student is suitable for special education services, the next step is the evaluation studies to plan the education programs. The information obtained through such an evaluation study is used in the development of individualized education programs. IEPs are prepared by the individualized education program development unit (MEB, 2018).

Monitoring Process

It is carried out to observe the changes and progress of students during the implementation of the program. The data obtained are used in the development of the program. The student should be monitored frequently with various methods and techniques in the teaching process.

Program Evaluation Process

An important purpose of the evaluation is to evaluate the curriculum itself and to determine the effects of the program on students. Formal and informal evaluation techniques are used in evaluation studies. The difficulties and deficiencies faced by the student are determined with the evaluation. As a result of the evaluation, teachers should determine what worked and what did not work in the program at the end of the teaching process, and evaluate whether the student will continue to special education services and whether new adaptations are needed (MEB, 2018).

Frequently Used Methods in Evaluation

Observation

Observation is the process of monitoring a person and recording the information obtained. Observations are made in structured or natural environments to collect information about the child's general development and individual characteristics. Observation results are often used to evaluate how the child behaves in natural environments, communicating with other children, reacting to stimuli around him, and his development. Observation records are used to decide his later behavior, especially rough assessment of behavior. The validity and reliability of the information obtained as a result of observation are of great importance in decision making.

Observation can be done for many different purposes. These purposes can be listed as follows.

• To discover and help interests and needs

• Determining the learning style of the student

• To be able to intervene when guidance is needed

• Measuring their progress and checking their physical health

• Determining problem areas, preparing necessary intervention programs

• Collaborating with other institutions, organizations, and experts (Kuzgun, 1988; Yeşilyaprak, 2004).

Principles to be followed when observing

• Preparation and planning are required for observation. Before making an observation, it should be determined where, when, how, for how long, by whom, and how it will be recorded.

• Observation should be made over a period of time. The individual must be observed as a whole and the observation must be made objectively. Observing the observed person for a short time and at different times rather than for a long time can increase the validity of the observation results.

• Data obtained from observation should be evaluated together with data obtained from other techniques.

• Observation should be made under appropriate conditions. The observed individual should not be aware. Observation records should be made objectively immediately after observation. Comments and personal opinions should be written separately. Subjective and objective evaluations should not be confused with observation data.

• When the observer records the results of the observation, the observed behavior should be written in detail, indicating the time and place.

• At the end of the observation, an evaluation should be made considering all the conditions the individual is in, and the results obtained should be used to recognize the individual (Kuzgun, 1988; Özgüven, 1998; Yeşilyaprak, 2004).

Observation List

It is the technique of answering the behaviors to be observed as "yes" or "no" and recording the behavior observed in the individual. It is especially used in preschool education to determine and evaluate the developmental characteristics of the child in various fields. Its most important limitation is that it cannot provide information regarding the frequency or duration of the observed behavior. For this reason, the lists

can be reused at regular intervals to reduce the limitations (Yeşilyaprak, 2004).

Rating Scales

It is a technique that determines the frequency and degree of a feature observed in an individual and expresses the results obtained in the form of numerical data. The rating scale is a kind of descriptive words or a list of expressions and it is the determination of the characteristics suitable for the person observed. Observing the behavior by more than one observer, having high ratings on the scale, and having sufficient information about the feature to be rated help the observer to prevent errors that may be involved in the scale (Kuzgun, 1988).

Feature Record Chart

Feature record charts, similar to observation lists, are tools developed to identify students' characteristics in different fields. The characteristics such as leadership, special abilities, creativity, and mental ability of the students can be determined with this chart. For example, by observing the characteristics of children with learning difficulties determined by experts, the teacher can determine the students who show the characteristics in the chart.

Interview

An interview is an interactive process that is carried out verbally for a specific purpose. Interviews with the parents of the child in the educational assessment and diagnosis process are of great importance. Parents are people who provide all kinds of information about their children. During the diagnosis process of the child, the most accurate information about the developmental characteristics, interests, and abilities, strengths and weaknesses, problems, and needs of the child can be obtained from the parents (Özgüven, 2004).

Key points to consider in family interviews

The key points to be considered in the interviews with the parents can be listed as follows.

• An empathic understanding and collaborative attitude should be adopted in the interview based on acceptance, respect, and love.

• In the interview, the positive aspect of the child should be stated first, and then the negative characteristics or difficulties of the child should be discussed. During the interview, the child should not be compared with other children.

• Explain why and how the observations are made for the child. Final judgments and decisions should be avoided and objective evaluations based on the information obtained should be made.

• Effective communication skills should be used in the interview. The teacher should make the parents feel that they accept the student and are willing to cooperate (Özgüven, 2004; Yeşilyaprak, 2004).

Tests

Individuals differ in all their characteristics. Psychological characteristics of individuals can be measured through tests. The test is defined as a set of standard stimuli selected to represent the universe of qualities to measure any quality of individuals. The tests are classified based on the number of individuals they are applied to (individual, group tests), data collection technique (paper-pencil tests, instrument tests), assessment type, objective (psychometric tests), subjective (projective tests) and the feature to be measured (ability tests, achievement tests, interest tests, personality tests, and aptitude tests). In Counseling and Research Centers, standard tests are used in the educational assessment and diagnosis of children requiring special education. The Stanford-Binet Intelligence Scale and Wechsler (WISC-R) Intelligence Scale for Children are standardized measurement tools that are frequently used in the diagnosis of children with intellectual disabilities. Besides, non-standardized tests are developed by teachers. These tests, also called teacher-made tests, measure the child's ability in a certain subject. In the educational assessments to be made, the sufficient and inadequate characteristics of the child can be determined in the relevant fields by using the test results and checklists for Turkish and mathematics lessons (Özgüven, 1998: Yeşilyaprak, 2004).

Test Application Stages

1) Preparation phase

It is important to prepare the child for the test and to choose the most appropriate time for the test. The physical needs of the child must be met before testing. The child's lack of sleep or hunger can affect the results of the test. Good communication should be established between the practitioner and the child, and the practitioner should be close and affectionate with the child. The practitioner should introduce himself and direct questions to the child to start communication and to able the child to introduce himself (For example; My name is ……., What is your name?). The questions that the child is curious about should be answered and the application to be made should be briefly explained to the child. It should

be determined whether the child will take the test or not. Failure to do the preparation phase enough can adversely affect the application of the test, the child's performance, and evaluation. (Baykoç Dönmez & Şahin, 2014).

The test environment where the test will be performed is effective in whether the test will give correct results. Ambient temperature, light, seating arrangement, equipment used in the test, stimulants in the environment affect the accuracy of test results. Necessary arrangements for the test environment should be made by the practitioner before the application. The practitioner should provide a comfortable testing environment (Baykoç Dönmez & Şahin, 2014; Yeşilyaprak, 2004).

2) Test implementation stage

The main purpose of the test application is to get the best performance of the child. Communication between the practitioner and the child is also important during the implementation phase. The practitioner should stay away from verbal attitudes and behaviors that affect the process and should act in accordance with the test's application instruction.

3) Interpretation of test results

Test results provide information on whether the child's performance is appropriate for his or her age. While interpreting the test results, the practitioner should consider the behavior of the child during the application, pay attention to whether the child can show his / her performance sufficiently in the application, and act objectively by determining his / her strengths and weaknesses. It should be kept in mind that the test results are not absolutely correct and some children may not show their real performance during the test application (Kuzgun, 1988).

Parental Response After Diagnosis

Parents have high dreams and expectations for their children when they are about to have children. However, learning that their child has a disability causes parents to differentiate their expectations, experience intense anxiety and stress, and increase their emotional reactions (Akçakın & Erden ; Okanlı et al., 2004; Sivrikaya & Çiftçi Tekinarslan, 2013). Diagnosing a disabled child is expressed as a traumatic situation for parents. When parents learn that their child is disabled, they can show emotional and behavioral reactions such as rejection of the diagnosis, anxiety, pessimism, stress, guilt, cognitive distortions, depression, isolation, and shame. Parents experience negative emotions such as stress and anxiety in this situation, which is difficult to accept and get used to. Besides, they have difficulties in fulfilling the requirements of living and experience tension in their interpersonal relationships, especially marriage

and emotional relationships. Inappropriate reactions, negative emotions, and increased responsibilities to this traumatic situation can negatively affect the mental health of the parents (Akçakın & Erden, 2001; Kara, 2018). Some researches show that the presence of a disabled or sick child in the family may cause conflicts in the family, marital and relationship problems (Baltaş & Baltaş, 2008; Bluth, Roberson, Billen, & Sams, 2013; Karpat, 2011; Meadan, Halle, & Ebata, 2010) and a decrease in the harmony between couples (Fortier & Wanlass, 1984; Küçüker, 1997; Lobato, 1983; Zeitlin et al., 1987).

After their child is diagnosed, parents want to know whether it is possible to cure their children. The role of experts is very important in helping parents adapt to the new situation. Experts need to inform parents with an empathic approach in the adaptation process. Families should be informed about the diagnosis, the characteristics of the child, and educational environments suitable for the characteristics of the child. After the educational evaluation and diagnosis, the Guidance and Research Center provides general information, psychological support and parent education activities for parents with disabled children.

Guidance and Psychological Counseling Services Provided by Guidance and Research Centers

Guidance and research centers offer guidance and psychological counseling services to individuals with SEN and recommend them the most appropriate educational environment in which they can be placed, as well as offering all kinds of studies regarding the effective and efficient execution of guidance and psychological counseling services in educational institutions (573 Decree Law).

Guidance and Psychological Counseling Services

According to Williamson (1949), psychological counseling is the face-to-face assistance of the counselor with his upbringing, knowledge, skills, and authority given to him to solve the adaptation problems of the client (Kuzgun, 1988). After diagnosis, parents may need psychological help to cope with emotional difficulties and adapt to the new situation. Psychological counselors provide assistance in resolving the problems they experience due to emotional difficulties. Psychological counseling services offered to individuals with disabilities and their parents focus on the feelings, attitudes, and roles of parents. These services start with learning that the child has a disability and continue in the life stages of the family such as the child's starting school, adolescence. Individual or group counseling activities can be beneficial for parents. In psychological counseling activities, it is aimed that parents with disabled children can

understand their and their children's feelings, thoughts, and reactions, confront their own feelings and find realistic solutions to their problems by sharing their feelings. The reactions the parents show after learning that they have a disabled child are similar, although they vary. During the psychological counseling process, it is ensured that the family realizes that the feelings they experience with the birth of a disabled child and the stages they go through are normal. It is emphasized that what is experienced is a natural process (Akkök, 1994).

Group Guidance

One of the services offered to parents with disabled children is group guidance. Group counseling is defined as "group activities and processes related to the development of the individual, to recognize himself and his opportunities, and to direct himself by making realistic and appropriate plans and choices". Group guidance is cognitive and focused on the subject. Group guidance is similar to teaching and aims to provide information (Özgüven, 2004). Parents' lack of information about their children's disability is one of the most important needs of the family. The family needs information such as the cause of the disability, how the child will be treated, what should be done, and what he/she may face in the future. When these needs are not met, it can be an important source of stress for parents. Helping families with such problems can help parents to meet the needs of their children and reduce their feelings of anxiety and guilt (Sucuoğlu, 2001; Wong, 1997). Group guidance provided to parents during and after the diagnosis process can be helpful. Group support can give parents the knowledge, understanding, and acceptance by others (Woodgate, Ateah, & Secco, 2008) and provides the initiation of change (Yalom, 2002).

Family Education

In family education, it is aimed to inform family members, especially mothers and fathers, and to teach certain skills. With the parent training activities, it is aimed that parents learn the necessary techniques and skills for the support they will provide to their children. According to the special education services regulation, family education includes all kinds of guidance and education services to be provided to the family to contribute to the education of students with SEN in all types and levels. These services are carried out in schools and institutions in line with the family education program prepared by the ministry.

Family education programs are systematic education practices created by experts. Family education programs include helping parents to acquire certain skills to raise their children and the skills to be taught to

them. While developing the program, educators should determine general goals and interests in line with the needs of families. Family and educators should agree on family education and its results. After determining the goals and clearly defining the desired competencies, families should be trained with the simplest training strategies. It should include issues such as the education and other rights of children, other rights and responsibilities provided to parents. Family education programs and approaches have become more widespread and the participation of parents with disabled children has increased (Cavkaytar et al., 2012).

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Chapter 13

REDEFINING GIFTEDNESS: SOCIAL-EMOTIONAL CURRICULUM WITH GIFTED AND TALENTED STUDENTS

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The social-emotional development is a central phenomenon in personality development. One of the most common societal beliefs related to giftedness includes gifted and talented students' ability to manage their social and emotional matters. School professionals should be trained to understand the complexities involved in addressing the needs of gifted and talented students. Although it may look paradoxical, school counselor and teachers are not trained to work with the gifted and talented students, which may presents issues in responding to social-emotional matters. A gifted education *Legacy Award winner book, Social-Emotional Curriculum With Gifted and Talented Students* VanTassel-Baska, Cross and Olenchak (2008) delineates methods for developing social-emotional core curriculum for the gifted and talented students in the school setting. Combing research and practice from pioneer scholars from the area gifted students' affective needs which offers a useful road map for educators, principals, and program managers. When redefining giftedness, interpretations from the book will be discussed.

Including overviews of strategies that work for implementing social-emotional strategies in the everyday curricula, the book covers theories to guide affective curricula, issues of minority students, models to social-emotional curriculum development, basic for counseling the gifted learners, and strategies to respond to the social-emotional issues of gifted students and the school professional partnerships in implementing affective curriculum. This useful guide to developing social-emotional curriculum for gifted students is a necessity for those who work with this population.

The Social and Emotional Curriculum with Gifted and Talented Students offers fundamental conceptual frameworks coupled with practical intervention approaches to the issues that gifted students face at home and in school. Various aspects of social-emotional curriculum are examined, theoretical perspectives are delineated, and models and strategies are outlined to guide affective curricula to promote the social-emotional needs of the gifted students. Thus, the book provides an opportunity to re-conceptualize the topic and practical ideas can be transferable to the classrooms and schools. Educators will find that strategies are applicable to be integrated to everyday curricula of the gifted, which are based on the existing literature and empirical research.

The social-emotional development is essential in one's personal development and growth. Without understanding and nurturing the social-emotional development, it is difficult for educators to support the gifted and enable them to thrive. In the introduction, Van Tassel-Baska (Van Tassel-Baska, Cross, & Olenchak, 2008) makes noteworthy comments on what major theme emerges from the book:

What binds the book together is the powerful theme of meaning-making, in other words, helping gifted students make sense of the big ideas in life including their own identity and the process by which personal growth and development occur (p. 1-2).

One's social-emotional development stage defines his or her life course, beliefs, feelings and behaviors. A sense of security in personal relationships, growth in skills, knowledge, and confidence generates happiness. Such statements are especially accurate when the personal development process challenges the individual to make special efforts above and beyond his or her functioning in learning/academics and in rising above personal struggles in life (Carver, 1998). In *Gifted and Thriving*, Sayler (2007) stated that talent development is beyond advancing one's talent performance; it is about supporting the gifted in achieving an integrated personality and life, which is self-satisfying for them. Gifted and talented individuals are social and emotional beings; they are not superwomen and men who are capable of overcoming any struggle in life. However, developing an affective curriculum that embraces the self-growth and social-emotional development for gifted students is a complex topic and a challenging task. Moon echoed this notion in Chapter 2 and commented, "For a long time, psychologists ignored emotions" and studying the internal processes of human beings has not been a focus of attention (Moon & Ray, 2008, p. 15). Moon & Ray's attempt at redefining giftedness as it focuses on the affective development and representing a new paradigm shift.

The positive psychology movement, especially the work of Seligman and Csikszentmihalyi (2000), influenced this paradigm shift. Seligman and Csikszentmihalyi articulated the paradigm shift toward directing the intellectual energy on the positive aspects in life through enhancing positive traits in individuals and institutions, such as schools, families, and communities. The role of social and behavioral sciences is enormous in improving the quality of life, in expressing a vision for a good life, and in showing empirically what particular behaviors contribute to the well-being of individuals, in creating thriving communities, and in proving what specific family conditions allows children to flourish (Seligman & Csikszentmihalyi). Unfortunately, there is little support by the existing literature that the affective development of gifted students is happening through special curricula for the gifted (VanTassel-Baska, 2004). Thus, this book's contribution to close the gap in meeting the social-emotional needs of the gifted and talented is invaluable. Teachers, counselors, administrators and parents will find the book very useful.

The book offers strength-based strategies founded on recognizing social construction of giftedness that embrace the personal growth and

development of the gifted, (e.g., in Chapter 4). Renzulli (2006) stated "Positive psychology movement and coupled with my continuing fascination about specific components that give rise to socially constructive giftedness, has resulted in an examination of personal attributes that form the framework of Operation Houndstooth" (p 87). This influence is reflected in emphasis on the positive aspects of human experience as comprehending the social-emotional curriculum for the gifted rather than solely focusing on the achievement and academics constructs. Renzulli explains (a) how co-cognitive factors parallel with non-cognitive factors (i.e., optimism, courage, passion, and sensitivity to human concerns, physical/mental energy, and vision/sense of destiny); (b) how co-cognitive factors influence the development of abilities, creativity, and task commitment; (c) how co-cognitive factors interact with and enhance the cognitive traits that we ordinarily associate with success in school and with the overall development of human abilities; d) how co-cognitive factors support the growth of cognitive qualities such as academic achievement, research skills, creativity, and problem-solving skill; and (e) how co-cognitive factors have significant implications on one's motivation, interpersonal skills, and organizational and management skills. Co-cognitive factors (optimism, courage, passion, and sensitivity to human concerns, physical/mental energy, and vision/sense of destiny) influence the development of abilities, creativity, and task commitment which parallels a great deal of theory and research that has looked at other non-cognitive concerns (e.g., emotional development, the development of self-concept and self-efficacy, character development, and the development of attitudes and values). Internalization of co-cognitive attitudes, beliefs, values, and behaviors cannot be achieved through any one of these interventions alone, highlighting the complexity of an affective curriculum.

While Renzulli (2006) affirmed the importance of utilizing the "interactive personality traits" (which consist of six components: optimism, courage, passion, sensitivity to human concerns, physical/mental energy, and vision/sense of destiny) and fostering affective development through an "environmental landscape" (i.e., abilities, creativity, and task commitment), he believes a significant role of schools is in instilling the values and virtues because of the changed family structures in society. Renzulli focused on school-related opportunities and alternatives for the development of positive changes in the young people. He asserted that once a school is able to establish an environment that fosters social action projects, students will begin to recognize that they are capable of being agents of societal change. This may be too idealistic and cannot be accomplished if such projects are not embedded in the society. Perhaps there is a need for future studies that embrace

collaborative partnership between family, school and community in order to support the gifted child beyond school boundaries. In order to not leave the gifted child behind, gifted educators should focus on not excluding the family, school and community as they offer ideas for the gifted social and emotional curriculum. Multicultural awareness, knowledge and skills are required qualities in educators. It should be recognized how individuals' socialization experiences shaped by their ethnic and racial heritage enhance the quality of education, training, practice, and research (American Council on Education, 2000). Educators should also recognize how racial and ethnic group association intersecting with other aspects of identity such as gender, age, disability, sexual and spiritual orientation, educational experiences, and socioeconomic status enhance the awareness and treatment (Greene, 2000). Further, how race and ethnicity shape one's personal identity should be valued (Sue, 1999) as a part of an affective curriculum. Indeed, multicultural literature repeatedly underlines that all individuals are "multicultural beings," thus; all interactions are cross-cultural (Pedersen, 2000). The roles of contextual factors maintaining the development of the gifted and talented students with diverse groups are highlighted in Chapter 6. Kwan and Hilson (2008) stated the importance of contextual approach when conceptualizing the identity development experienced by the gifted students. Schools should assist families to overcome cultural and communication barriers that may result from cultural and social class differences to enhance the interactive personality traits of the gifted and talented students' families.

A social capital approach highlights how parents' social relationships support the progress of children's school effort (Coleman, 1988). It is the interactive personality traits and environmental landscape that give rise to abilities, creativity and task commitment as Renzulli argued. With the concept of "environmental landscape", Renzulli referred to the other contextual factors besides schools, but somehow he did seem to see the schools to be most influential. He broadly discussed what schools should do in initiating actions and promoting social capital so that the next generations of students are engaged socially and have opportunities to develop and internalize co-cognitive attitudes, belief and values. In order to encourage the creation of social capital in gifted children earlier, it is important to engage them in opportunities to cultivate the development of positive assets (e.g., initiative, creativity, leadership, altruism, and civic engagement). Collaborative partnership with family and community members is crucial when one seeks new opportunities to create social capital for the gifted. However, it is rather difficult for schools to foster the creation of social capital by themselves. Rather than what schools could offer to families, we should also discuss what families and community

could offer to the education of children. Society's institutions play a significant role in instilling and reinforcing positive values and virtues to the youngsters. Educational endeavors do not start when students enter school and do not stop when they leave and children's upbringing shapes their values and virtues. Social and cultural capitals are interrelated, and are intertwined with factors related to social class. Social class differences shape the school and family interactions and how families feel welcomed and accepted into the school culture. Social class affects the educational experiences of all students in K-12 education as an undercurrent variable. Shumow and Lomax's (2001) national study of 929 families with children on parents' feelings of efficacy on student achievement supported this idea. Family background, income, and neighborhood affect feelings of efficacy, which affects parental involvement in children's education and upbringing and that, in turn, affects children's achievement and feeling of well-being. Children who come from families with higher feelings of efficacy did better in school and felt happier, safer, and more stable and these families were more involved in school and with their children at home. When a philosophy of partnership is embraced and power is shared, the responsibility for children's educational development is a collaborative effort among parents, school staff, and community members (Moore, 1998; Wang, Oates & Weishew, 1997; Smrekar, Guthrie, Owens, & Sims, 2001). Welcoming programs effectively connect with families and community, which address the needs of parent and community (Henderson & Mapp, 2002). Henderson and Mapp reviewed a number of empirical studies on factors effecting student achievement and concluded that school staff's relationships matter, especially if parents and community members were seen and treated as assets to the process of raising student achievement by school staff. Educational institutions should utilize the resources available to create social capital (e.g., welcoming climate for family and community members to involve in the educational process) because schools are not isolated as they are embedded in the community.

The complexity of identity development is recognized throughout the literature. While recognizing this intricacy especially for gifted students, Moon (2008) examined existing theoretical frameworks on the social-emotional development of the gifted in Chapter 2, *Theories to Guide Affective Curriculum Development*, as a reference for anyone who designs affective curriculum. While Moon noted the role of identity development theories in providing a conceptual framework on the process of identity development, she suggested that the theories require adjustment in order to capture the affective development of the gifted. I agree with the author and believe that such adjustments should view the identity development from an integrative perspective, which incorporates child, adolescent and adult

identity and life-span developments, concurrently. Also the relationship between cognitive, personal, emotional, social, and moral development should not be ignored. This notion is well captured by the concept of asynchrony (or known as uneven development), which is defined in *Encyclopedia Britannica as: "*Variability of development is another characteristic observed in gifted children. In the late 20th century, the term asynchrony was used to describe the developmental characteristics of gifted children; that is, their mental, physical, emotional, and social abilities may all develop at different paces" (2009). Gifted children typically do not follow the developmental spectrum sequentially and viewing identity from an integrated and constructive perspective can help educators as they design and implement an affective curriculum to meet the special needs of the gifted.

An affective curriculum, which focuses on identity development earlier than other students, can be beneficial for gifted and talented students and this resonates throughout the book as a common theme. VanTassel-Baska (2004) outlines Affective components in a Gifted Program in Chapter 5 and *philosophy of life* is one of them which include addressing questions such as: How do I define meaning for myself? What are my life themes? Knowing that gifted middle school students are ready for work on career development much earlier, educators can provide them support on career development much sooner than others. As Moon (2008) pointed the importance of reflection and personal problem solving; such as "What am I good at? What do I want to accomplish in my life? How can I achieve the goals that I've set for myself?" (p.24). Mentioned questions are at the center of identity, social, emotional moral, academic and career development. They allow exploring issues for better understanding where the students are on the developmental spectrums and what their unique needs and features are.

Echoing the complexity of identity development in the gifted, based on her clinical observations and theoretical proposition, Silverman (1994) commented that gifted children display cognitive complexity and their unique personality traits create exclusive experiences and awareness that takes them apart from others. As an essential element to the welfare of the entire society, moral sensitivity is a central trait in the gifted experience (Silverman). Sensitivity among gifted children takes place in many shapes. For example, gifted children feel easily hurt, show compassion toward others and empathize with how others might feel, are protective, cry easily, act strongly in response to criticism, and react strongly to information received through the senses (pollution, noise, and some food items). Perfectionist tendencies and emotional intensity also come into play regularly in parents' description of these children (Silverman, 1993).

Perhaps an affective curriculum should offer strategies on how to handle such overwhelming emotions.

Webb (2002) stated that gifted children are at psychological risk due to internal and situational factors. Gifted and talented persons are more likely to be at risk for existential depression. Webb (2002) asked, "Why should such existential concerns occur disproportionately among gifted persons?" (p. 1). Persons of higher intellectual ability are more prone to experience existential depression. Rather than simply paying attention to the simple aspects of daily life, they give considerable thought to confront fundamental existential issues (i.e., death, freedom, isolation and meaninglessness). They tend to be idealist. They are able to think about the possibilities, which may lead them to experience emotions intensely and to become disappointed with the way things are. Having the ability to be multi-potential yet at the same time realizing their existential limitations can be frustrating. Helping gifted children recognize, confront and cope with basic existential issues in an accepting way may allow them to manage their existential concerns. Thus, gifted children can realize that they are not alone in their experiences. The ability to reflect on existential matters can be an instrumental skill because it is the existential issues that cause gifted children often hide their authentic self deeply behind social, political, or academic causes (Webb, 2002). Helping gifted children build meaningful frameworks for life is essential as they strive to construct a personal philosophy of life, which reflects their cognitive complexity and is framed by their beliefs and values. Thus, an affective curriculum may be key in helping a gifted child navigate such existential inquiries that could otherwise be overwhelming.

Furthermore, I believe what an affective curriculum attempts to offer is far beyond the complexity of any theory. Assisting a gifted student in making good life decisions, developing a philosophy of life, optimizing his or her full potential are lifelong agenda items in one's existence. Thus, the complexity of the gifted and talented development is recognized undeniably. Adult life-span developmental models could be integrated into the affective curriculum of the gifted and talented. To assist gifted and talented in assessing their meaning making from the self-authoring epistemology, subject object interview strategies can be used as a function for developmental interventions. Future research should explore how gifted and talented individuals make sense of their experience and construct meaning in relation to the world, self, and others to review these meaning-making structures and their underlying interpretations. Thus, it can identify various domains of an affective curriculum.

As a fundamental concept in his constructive development theory, Kegan (1982) coined the concept of self-authorship. He asserted that

individuals who have developed the concept of self-authorship are able to explore, reflect on, and choose values that form their identities and are internally driven (i.e., without conforming the expectations of others). Self-authorship is defined as "an ideology, an internal identity, a self-authorship that can coordinate, integrate, act upon, or invent values, beliefs, convictions, generalizations, ideals, abstractions, interpersonal loyalties and interpersonal states" (Kegan, 1982, p. 185). This internal identity guides thought, expectation and behavior, which is independent from other and presents cognitive maturity, that encompasses respecting for both self and other. Kegan's integrated view of the development included epistemological, intrapersonal, and interpersonal dimensions, which are intertwined. Individuals make context-based meaning between their experiences and how they reacted to these experiences. The following quote explains Kegan's view further: "the place where the event is privately composed made sense of, the place where it actually becomes an event for that person" (1982, p. 2). Constructive developmental theory translates the previously mentioned traits (e.g., empathy, tolerance, and self-esteem) into a more dynamic and inclusive formulation of human capacity. From a young age, gifted children demonstrate moral sensitivity. They show tendency to care for others (i.e., desire to relieve other's pain or show strong skills in comprehending of justice and fairness. This moral sensitivity is found early on in the development of empathy between child and parent and it is the basis of identity formation and development of the self (Lovecky, 1997). Silverman (1994) suggested that the greater the moral sensitivity and asynchrony of gifted children, the more vulnerability they experience. Asynchrony refers to the variability of development characteristics of gifted children; they may all develop at different paces in their "mental, physical, emotional, and social abilities" *Encyclopedia Britannica* (2009). Because of their moral concerns about the world's problems, these very young and extremely compassionate children are at risk. They are vulnerable by the emotional strain they feel since they have not developed effective ways to deal with strong emotions (Lovecky, 1997). Children who want to help the needy may have trouble comprehending their parents' reluctance (Lovecky). The role of parents is especially important in the social and emotional development of the child. It is important to discuss ways to educate parents so that they can assist their young children and establish a nurturing relationship.

The literature highlights that parents often lack the knowledge about the traits of gifted children; thus, the relationship between the child and the parent may suffer if parents do not know how to assist these children when they display curiosity, sensitivity, and withdrawal (Webb, 2000). The children can then come across as being mischievous, strong willed,

and weird. Intense power struggle arguments, and temper tantrums may take place within the family (Webb). Perhaps the future work on this topic could address how to utilize an effective home-school-community partnership for gifted students. Because of their asynchronous development and heightened emotional sensitivity to these issues, gifted children could worry excessively and become depressed (Robinson, 1996): thus, it requires special consideration (Lovecky, 1997), for example, assisting gifted individuals in developing good internal boundaries at the same time teaching them maintain appropriate interpersonal interactions. As a result, the sensitive gifted children learn to set limits on their suffering, find ways to deal with pain internally and learn types of help that are useful to offer others (Lovecky, 1997). Lovecky (1993) defined empathy as the capacity for projective identification with another, which is usually used to mean that one projects oneself into another's persona and determines what the other is feeling. Empathy may also mean an ability to project oneself into something.

Baska, Buckingham, and Baska (2009) ask, "In life are we searching for meaning out there or creating ourselves from inside here?" (p. 228). Interestingly**,** Baska et al. (2009) state the arts can bridge cognitive and affective selves and this bridge allows acknowledging "the unknowns of the creative enterprise" and "the paradox of inner and outer influences on our understanding of our world" (p. 253). Visual artists project themselves onto canvas when they paint and scientists describe the identification they feel with their subject matter (Lovecky, 1993). The authors explore the role of the arts in socio-emotional development of the gifted in Chapter 9. The ability to imagine oneself as part of one's creative product is described in the literature of adult creativity (Root- Bernstein, 1987). Growth and differentiation happen by responding to the introjections of others (Neihart, 1998). Neihart continued, "Adults serve as mirrors in which the self of the gifted child comes to know itself" (1998, p. 187). Growth and integration of the true self is accomplished when there is a relationship between child and adult. Thus, parents and school staff's role is essential in assisting gifted children to preserve their true selves so that they grow as authentic adults and strive to reach their full potential. The development of the self is impacted most by the response of others to the child (mirroring). When young children are not free to express their own emotional reactions and feelings with their parents, they learn to deny them to avoid the loss of their parents' love and this denial continues under parental influence. When the gifted child feels discouraged to express his giftedness, he or she learns to deny that giftedness to avoid the loss of love. Parents who have difficulty accepting their own giftedness will be less effective in preserving the true selves of giftedness in their children than adults

who have integrated the components of their own true self (Neihart). I believe through using their affective curriculum effectively, educators should empower gifted children to accept their giftedness as a part of their self-identity. Studies indicate that numerous factors affect one's self-concept and self-concept changes with developmental levels. Thus, it is hard to make generalizations about self-concept and generalize findings with one age group to other/s. It is not useful to assess self-concept as a criterion to compare gifted children's psychological well-being because of the confounding variables that exist (Neihart, 1999). Self-concept is the set of ideas one has about him or herself (i.e., an imperative ingredient of personality). Self-concept emerges as a result of cognitive development, which is subject to change over time as an individual changes cognitively (Neihart, 1998). Self-concept emerged in the book, as an important construct to understand social and emotional needs of gifted and talented students (Cross, Baska, & Olenchak, 2009). The development of one's sense of self emerged as a critically important construct and the authors indicated that talent and affective development are codependent. I believe how one develops a positive personality that enhances the meaning-making ability in life (e.g., developing a philosophy of life, learning to cope with existential concerns) is a broader developmental topic than affective curriculum can encompass.

For two summers, I worked with various gifted and talented summer camp students at the Belin and Blank Center at the University of Iowa. My position involved working closely with School Counseling students in training. This experience thought me that it is necessary for training programs to consider integrating affective curriculum into their curriculum. For example, "How to train student counselor and teachers to work with the gifted?" is not studied much and it is worth exploring. Colangelo (2002) stated, "A counselor recognizes that an individual is complex and a composite of apparent paradoxes and thus does not want to make definitive statements that can be challenged. Gifted students, if nothing else, are complex. However, it does no good to pretend there are certain things we do not know when we do." (p. ix-x) While research and clinical observation has provided much information on the social-emotional issues a gifted confronts (Colangelo), still much is unknown and needs to be explored (e.g., how gifted children's affective needs influence their talent developmental).

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Chapter 14

THE ANALYSIS OF 2018 SOCIAL STUDIES COURSE CURRICULUM AND ITS IMPLEMENTATION IN TURKEY

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Introduction

The 2018 social studies course curriculum was ratified by the Board of Education and Discipline (TTKB) on January 19, 2018 (Approval no: 12). The introduction section included certain information on the changes in primary and secondary education curricula in 2017 and 2018 (MEB, 2018a).

In the introduction of the 2018 social studies curriculum, the rationale of the amendments to the curriculum was emphasized as follows: The rapid advances in science and technology and the changing social requirements, innovations and developments in learning theories and approaches have directly affected the roles expected from individuals. Thus, the curriculum aimed to train individuals who can produce and use knowledge, solve problems, acquire communication, empathy, and critical-thinking skills, and contribute to the society. In the curriculum, it was also mentioned that it was developed with a comprehensible structure, which does not only convey knowledge, but also takes individual differences into account, and aims the acquisition of skills and values. It was emphasized that the curriculum adopted a repetitive structure that was distributed across all grade levels with a spiral approach, and included learning outcomes that aimed holistic achievements (MEB, 2018b, p.3).

Curricula perspectives, values and competencies

The 2018 social studies curriculum aimed to train individuals who integrated values and competencies with knowledge, skills and behavior. Values and competencies provide the integration between knowledge, skills and behavior. Values, which originate in traditions, provide the power to solve the problems. The root values in the curriculum included honesty, justice, friendship, patience, respect, self-control, love, responsibility, patriotism, and benevolence (MEB, 2018b, p.3).

The education system also aims to train individuals with knowledge, skills and behavior integrated with competencies. These are the skills that individuals need in national and international social life. Eight key competences were identified for Turkish competencies:

1. Communication in native language
2. Communication in foreign languages
3. Mathematical competency and scientific/technological competencies
4. Digital competency
5. Learning to learn

6. Social and citizenship competencies
7. Initiative and entrepreneurship
8. Cultural awareness and expression.

It could be suggested that values are more abstract attitudes that rooted in history and affect personal decision-making processes, while competencies are rather practical skills. The education system does not only instruct academic knowledge, skills and behavior. It also aims to train individuals who adopt basic values. The values mentioned in the curriculum as root values included justice, friendship, honesty, self-control, patience, respect, love, responsibility, patriotism, and benevolence (MEB, 2018b, p.3).

Measurement and evaluation approach in curricula

It was reported that a measurement and evaluation system that fits everyone was against human nature due to individual differences. Thus, it was emphasized that measurement and evaluation process should be diversified. In this context, originality and creativity are expected from teachers. The measurement and evaluation principles were summarized as follows (MEB, 2018b: p.6):

1. Measurement and evaluation should be based on all curriculum components, achievements and achievement details.

2. The curriculum does not draw clear boundaries for the applied measurement tools and methods, it only provides guidelines. However, the preferred measurement and evaluation tools and method should comply to the technical and academic standards.

3. Measurement and evaluation is an integral part of educational practice and are conducted throughout the educational process. Measurement results should be approached with integrity within the process and should not be singled out.

4. Due to individual differences, a general, uniform measurement and evaluation method is not possible for all students. A student's academic progress could not be measured and evaluated with a single method or technique.

5. Education does not only aim knowledge (thinking) but also feeling (emotion) and doing (action); therefore, cognitive measurements alone are not sufficient.

6. Multifocal measurement and evaluation are essential. Measurement and evaluation practices should be conducted with the active participation of teachers and students.

7. The individual traits such as interest, attitude, values and achievements that are measured and evaluated may change over time. Thus, it is essential to employ measurements that would take these changes into account instead of measuring the traits at one time.

It was stated in the curriculum that the measurement tools could not be uniform and the academic developments could not be measured with a single method or technique. Similar to the 2005 curriculum, it was mentioned that not only knowledge but also affective and psychomotor developments that include emotions and actions should be measured. Furthermore, it was recommended to take the changes into account instead of one-time measurements.

Personal development and curricula

It was emphasized that the curricula were developed based on the personal development process, and the teachers should adopt necessary adjustments to acquire predetermined objectives and achievements. It was stated that curricula were developed based on the requirement of holistic analysis of human development and individual differences (MEB, 2018b, p.6-7).

Specific aims of the social studies course curriculum

The social studies course curriculum included 18 special aims based on the General Objectives and Basic Principles of Turkish National Education cited in the National Education Law No: 1739 (MEB, 2018b, p.8):

1. To train Republic of Turkey citizens who love their country and nation, know and use their rights, fulfill their responsibilities, and have national awareness,

2. To train individuals who understand the significance of Atatürk's principles and reforms in the social, cultural and economic development of the Republic of Turkey and are willing to sustain democratic, secular, national and modern values,

3. To train individuals who know that the rules of law are binding for all since all persons and organizations are equal before the law,

4. To train individuals who understand the basic elements and processes of Turkish culture and history, and accept the requirement to preserve and develop cultural assets that lead to national awareness,

5. To train individuals who recognize general geographical features of their environment and the world and explain the interaction between humans and the environment and develop their spatial perception skills,

6. To train individuals who are aware of the limitations of nature and resources, try to protect natural resources with environmental awareness and sustainable environment approach,

7. To train individuals with critical thinking skills who know the methods to access accurate and reliable knowledge,

8. To train individuals who comprehend the role of national economy in development and international economic relations and the basic economic concepts,

9. To train individuals who believe in the significance of employment in social life and the necessity and respect of every profession,

10. To train individuals who question historical evidence for various periods and places, identify similarities and differences between individuals, objects, events and phenomena, and perceive change and continuity,

11. To train individuals who use knowledge and communication technologies and understand scientific and technological advances and their effects on social life,

12. To train individuals who observe scientific ethics in access, employment and production of knowledge based on scientific methods,

13. To train individuals who can use basic communication skills and basic concepts and methods of social sciences to organize social relations and solve problems,

14. To train individuals who believe in participation, can discuss the solutions for personal and social problems,

15. To train individuals who understand the history of human rights, national sovereignty, democracy, secularism, the republic and their effects on Turkey and organize their lives based on democratic rules,

16. To train individuals who know the significance and methods of virtue and adopt national, spiritual and universal values,

17. To train individuals who are sensitive to national and global issues,

18. To train individuals who are aware of their physical and emotional traits, interests, wishes and talents as free individuals.

Several general objectives listed in the 2005 curriculum were included as special objectives in the 2018 curriculum.

Basic skills in social studies curriculum

The skills that should be acquired by the students were included in 27 items based on Turkish competencies in the 2018 curriculum (MEB, 2018b: p.9):

Table 1: The skills included in the 2018 social studies curriculum

1. Research
2. Environmental literacy
3. Perception of change and continuity
4. Digital literacy
5. Critical thinking
6. Empathy
7. Financial literacy
8. Entrepreneurship
9. Observation
10. Map literacy
11. Legal literacy
12. Communication
13. Collaboration
14. Acceptance of stereotypes
15. Evidencing
16. Decision-making
17. Location analysis
18. Media literacy
19. Spatial perception
20. Self-control
21. Political literacy
22. Problem-solving
23. Social participation
24. Table, graph and diagram development and interpretation
25. Fluency in Turkish language
26. Innovative thinkins
27. Temporal and chronological perception

The 15 skills included in the 2005 curriculum were increased to 27 in the 2018 curriculum. The 13 skills were common in both curricula and one skill was renamed in the 2018 curriculum (from creative to innovative thinking).

Values education in social studies curriculum

The values included in the 2018 social studies curriculum are presented in Table 22 (MEB, 2018b: p.9).

Table 2: The values included in the 2018 social studies curriculum

1. Justice
2. Family unity
10. Aesthetics
11. Equality

3. Independence	12. Freedom
4. Peace	13. Respect
5. Science	14. Love
6. Industriousness	15. Responsibility
7. Solidarity	16. Savings
8. Sensibility	17. Patriotism
9. Honesty	18. Benevolence

There were 20 values in the 2005 curriculum and 18 in the 2018 curriculum as seen in Table 2. The health, hospitality and tolerance values were not included in the 2018 curriculum. The other values were the same in both curricula, only "savings" was added in 2018.

2018 social studies curriculum implementation principles

In the curriculum, the following implementation recommendations were presented for the teachers (MEB, 2018b: p. 9):

1. Social Studies learning areas include a holistic approach to social sciences such as history, geography, economics, sociology, anthropology, psychology, philosophy, political science and law, as well as human rights, citizenship and democracy. Topics should be instructed with an interdisciplinary approach rather than separately as history, geography, human rights and citizenship.

2. Basic principles of social studies instruction such as regionality, actuality, interdisciplinary, reflective inquiry, the connection between past-present-future, temporal continuity and change, and flexibility should be the basis for the acquisition of the achievements. Instruction periods may be changed based on these principles, when necessary.

3. "Social studies as social sciences" and "social studies as reflective thinking" approaches should be prioritized. The students should acquire scientific methods employed by social scientists (geographers, historians, etc.). The events inside and outside the school should be used to allow the students to frequently compare real-life problems and contradictions and reflect on the social problems.

4. In the curriculum, values and skills are directly associated with the achievements. However, for the instruction of values and skills based on lifelong learning, the said values or skills should also be associated with various acquisitions and learning areas when necessary.

5. Conceptual instruction is prominent in the curriculum. Thus, classifications and various conceptual instruction approaches should be

adopted. Ambiguity, incomprehensibility and misconceptions should be avoided.

6. The historical and national awareness of the students should be improved with the employment of national and religious holidays, local liberation days and celebrations, important events, certain days and weeks.

7. Out-of-school activities should be included in social studies instruction. These could be conducted in the school vicinity (such as the school garden), marketplaces, public offices, factories, exhibitions, archaeological sites, workshops, museums and historical sites (historical buildings, monuments, museum-cities, battlefields, virtual museums, etc.). Furthermore, oral history and local history activities should be conducted on appropriate topics.

8. Social studies course should be supported with literary works in genres such as legends, epics, fairy tales, proverbs, folk tales, folk songs, and poetry. Students should be encouraged to read literary works such as novels, historical novels, stories, memoirs, travel memoirs, and anecdotes. Furthermore, these acquisitions should be supported by traditional or modern artworks such as painting, music, miniature, engraving, calligraphy, sculpture, architecture, theater, and movies.

9. Current and controversial issues associated with the achievements could be discussed in the classroom with problem solving, critical thinking, evidencing, decision making, and research skills.

10. Recent advances in digital technologies led to new issues in citizenship rights and responsibilities (digital citizenship, e-Government, virtual commerce, social media, etc.) and certain problems (digital divide, identity theft, privacy of personal information, cyber fraud, cyberbullying, etc.). To improve the digital citizenship competencies of the students, relevant in-class and extracurricular activities should be organized.

The analysis of the above-mentioned items revealed that the interdisciplinary approach, certain general principles to acquire the achievements, the significance of social sciences and reflective thinking, and achievements were associated with values and skills; thus, different approaches should be adopted in conceptual instruction and misconceptions should be eliminated. Historical sensitivity and national awareness should be developed among students. Out-of-school environments and literary works should be employed in social studies instruction, and current controversial issues associated with the achievements could be discussed in the classroom. Digital citizenship competencies of students should be improved.

The number of implementation principles was reduced from 17 to 10 in the 2018 curriculum. The discussion of controversial issues and digital citizenship competences were introduced in the 2018 curriculum.

The structure of the social studies course curriculum

The learning area was described as "an interdisciplinary structure that organizes learning that adopts a holistic approach to interrelated knowledge, skills and values" in the social studies curriculum. The following learning areas were included in the curriculum (MEB, 2018b: p.11-12):

1. Individual and society,
2. Culture and heritage,
3. People, places, and environments,
4. Science, technology, and society,
5. Production, distribution, and consumption,
6. Active citizenship,
7. Global relations.

The 9 learning areas included in the 2005 curriculum were reduced to 7 in the 2018 curriculum. The "time, continuity and change, "groups, institutions, social organizations," "authority, administration and society" learning areas in the 2005 curriculum were removed in the 2018 curriculum, and the "active citizenship" learning area was added.

The analysis of the implementation of the 2018 social studies curriculum

Several papers were published on the theoretical and applied analysis of the 2018 social studies curriculum. These papers were discussed in the following sections.

Studies on 2018 social studies course curriculum

In general, it was determined that the 2018 social studies curriculum was associated with various disciplines based on the learning areas with an emphasis on citizenship and sociology and national and universal values, the changes when compared to the previous curriculum were mainly in content, and the number of teachers with negative views on the new curriculum was higher than those with positive views. It was reported that the number of achievements in certain values were limited, there were no achievements associated with certain competencies, and the topics were mostly abstract in the curriculum.

In a study conducted by Turan (2019) on the distribution of learning areas based on the discipline in the 2018 social studies course curriculum, it was reported that the 2018 social studies curriculum was associated with various disciplines in learning area level. Learning areas were generally in sociology, citizenship, philosophy, environmental education, history, scientific research, political science, economics, geography, anthropology, science and technology, law, informatics, human rights and democracy, ethnography and psychology. The weight of these disciplines in the curriculum was citizenship and sociology, 71%, philosophy, history and environmental disciplines 57%, economics, political science, science and technology 42%, geography, anthropology, informatics and law 28%, human rights, democracy, psychology, and ethnography 14%.

In a study conducted by Karacan (2018) on the distribution of national and universal values in the 5th grade social studies curriculum and textbooks, it was determined that national and universal values were included throughout the program, and various values were included in each learning area.

In a study conducted by Şarpal and Acun (2019) on practical problems in the implementation of the 2018 social studies curriculum based on the views of faculty members, it was demonstrated that the curricular changes only included the content. They reported that although it had a rich theoretical content, it was prone to certain problems in practice.

The issue of infrastructural problems, which was a significant criticism about the 2005 curriculum, prevailed about the 2018 curriculum as well. In a study conducted by Altay (2020) that aimed to analyze the 2018 social studies curriculum based on teacher views, it was reported that the number of teachers with negative views on the revised curriculum outcomes was higher than the number of teachers with positive views. It was reported that the history and geography topics were predominant and difficult. The implementation problems discussed in the study included insufficient course hours, the problems associated with the textbooks, the lack of school infrastructure, and the socio-economic level of the parents.

In a study conducted by Esemen (2020) on the excluded universal values in the 2018 curriculum, the study findings demonstrated that 16 out of 33 4th grade achievements, 19 out of 33 5th grade achievements, 14 out of 34 6th grade achievements, 13 out of 31 7th grade achievements were associated with universal values. Furthermore, it was concluded that the achievements associated with equality, peace and arts were insufficient, and that the value of love was not associated with the curriculum achievements.

In a study conducted by Pala (2020) on the absence of acquisitions associated with key competencies in the 5th grade social studies curriculum, it was reported that the 5th grade social studies course curriculum outcomes were compatible with the key competencies. It was observed that the curriculum mostly included achievements associated with social and civic competencies; however, there were no achievements in fluency in the native language and foreign languages. Furthermore, it was determined that the learning areas associated with social and civic competencies were prevalent when compared to others.

In a general analysis on the curriculum conducted by Hanaylı et al. (2020), the perceptions of social studies teachers on the subject, the meaning and functions of the social studies curriculum, its content and instruction were determined. The study findings demonstrated that history and geography teachers approached the social studies course based on their respective fields, while social studies teachers approached social studies from a more interdisciplinary perspective. In practice, it was determined that the approach to the other disciplines that are included in social sciences was not holistic, but a few disciplines were emphasized. Social studies teachers agreed that social studies topics were abstract. They argued that students did not have a clear understanding about human rights, democracy, freedom and geographical concepts. It was demonstrated that due to the high number of topics, lack of time, low budget and exam anxiety, the teacher could not conduct field surveys, museum visits, cooperation with social institutions and organizations.

The comparison of 2005 and 2018 social studies course curricula

In general, the 2018 curriculum did not include information on a preferred measurement and evaluation technique, the number of learning areas and achievements decreased in the 2018 curriculum, the number of geographic skills and achievements increased in the 2018 curriculum, and the number of acquisitions was not adequate in certain disciplines.

Öztürk and Kafadar (2020) conducted a study to analyze the 2018 curriculum and provided the common perspective of the social studies curriculum for all courses. Thus, it was reported that the curriculum aimed the acquisition of knowledge, skills and behavior based on values and competencies. The general objectives of the program were described as perspectives. In the 2005 curriculum, the perspective was called the vision. Value and skills instruction was not considered as a separate course and topic in the curriculum, but these were integrated with the other courses. In the instructional approach was multidisciplinary, harmonic, general to specific, concrete to abstract, simple to complex, holistic, student-

centered, based on learning areas, values and competencies, and aimed the acquisition of knowledge, skills and behavior. However, there was no mention of the measurement and evaluation methods and techniques that should be employed in the curriculum.

Similarly, Kalaycı and Baysal (2020) conducted a comparative analysis on the social studies curricula. The analysis of the general structure of the curricula revealed that the sections such as the Turkish national education objectives, vision and the fundamental approach in the 2005 curriculum were not included in the 2017 and 2018 curricula, and there were 174 achievements in the 2005 curriculum and 131 achievements in the 2018 curriculum. The analysis of the skills and values revealed that the creative thinking skill in the 2005 curriculum was named innovative thinking, the values of tolerance and hospitality included in the 2005 curriculum were removed in the 2018 curriculum, and the equality and saving values that were not included in the 2005 curriculum were included in the 2018 curriculum. Based on content, it was determined that nine learning areas included in the 2005 curriculum were reduced to seven in the 2018 curriculum. The analysis of educational status demonstrated that the 2005 curriculum included sample activities for each achievement, which were not included in the 2018 curriculum. The analysis of the evaluation dimension revealed that the measurement tools were discussed in detail in the 2005 curriculum with examples.

Similarly, Eker (2020) aimed to compare the 2005 and 2018 social studies curricula. The study findings demonstrated that the units in each learning area in the 2005 curriculum were not included in the 2018 curriculum. In the 2018 curriculum, direct learning areas and achievements were included instead of the units, since the unit approach was discontinued. The 2005 curriculum included 17 general objectives and 18 specific objectives that were also included in the 2018 curriculum. Instead of the direct values and skills in each unit in the 2005 curriculum, there were more than one value and skill were mentioned at the beginning of each learning area in the 2018 curriculum. There were 9 learning areas in the 2005 curriculum and 7 in the 2018 curriculum. The groups, institutions and social organizations, time, continuity and change, and authority, administration and society learning areas in the 2005 social studies curriculum were not included in the 2018 curriculum. In the 2018 curriculum, an effective citizenship learning area was introduced by combining the achievements in power, management and society and groups, institutions, social organizations learning areas. The skills in the 2018 curriculum were grouped in 8 items under the Turkish Competencies Framework (TCF). The number of skills increased to 15 in the 2005 curriculum and 27 in the 2018 curriculum. It could be suggested that the

structure of the 2018 curriculum was simpler than the 2005 curriculum. Kemalism topics, associations and activities included in the 2005 curriculum were removed in the 2018 curriculum. There was a decrease in the number of achievements when compared to the 2005 curriculum. Similar to the 2018 curriculum, the 2005 curriculum had a process-based and student-centered measurement and evaluation approach.

Önlem, Tatan, and Ibret (2020) conducted a comparative analysis of the achievements (5,6,7th Grades) in the 2005 and 2018 social studies curricula based on the revized Bloom Taxonomy. The study findings demonstrated that the number of achievements in the 2005 social studies curriculum was reduced in all grade levels in the 2018 curriculum. The aim was to obtain a simpler curriculum. Thus, the number of acquisitions was reduced from 46 to 33 at the 5th grade level, from 43 to 34 at the 6th grade level, and from 39 to 31 at the 7th grade level. The 2018 social studies curriculum aimed to achieve higher cognitive skill levels with the acquisitions. Thus, the 5th and 7th grade achievements were organized to reflect this aim in the 2018 curriculum. However, the 6th grade achievements were insufficient. The implementation acquisitions, which was 2% at the 5th grade level in the 2005 curriculum, was increased to 21% in the 2018 curriculum, and the implementation acquisition, which was 3% in the 7th grade, was increased to 13% in the 2018 curriculum. The implementation acquisition, which was 7% at the 6th grade level, was increased to 11% in the 2018 curriculum. The increase in the implementation acquisition at the 6th grade was inadequate when compared to 5th and 7th grades in the 2018 curriculum.

In a study conducted by Çiftçi and Akça (2019) on geographical skills acquisition, the geographical skills and geographical learning areas in 2005 and 2018 social studies curricula were compared. The findings demonstrated that there were 9 geographical skill acquisitions in the 2005 curriculum, the figure increased to 22 in the 2018 curriculum. Location analysis, perception of change and continuity, map literacy, environmental literacy skills were added in the 2018 curriculum. In addition to increasing the number of geographic skills in the 2018 curriculum, it was determined that geographical issues were more detailed and in-depth. The comparison of the geographical achievements in the 2005 and 2018 social studies curricula revealed 53 geographical achievements in the 2005 curriculum, and 82 in the 2018 curriculum. In general, geographical acquisitions were expanded at each grade level and emphasis was on the development of personal skills such as analysis and questioning in the 2018 curriculum, and geographical events and phenomena were employed to make inferences with activities suitable for current conditions. In short, the comparison of the 2005 and 2018 social studies curricula demonstrated that the 2018

curriculum was more advanced in geographical skills and acquisitions, both in number and content.

In an analysis based on the disciplines included in the curriculum, Demir and Haçat (2018) aimed to determine the associations between the disciplines and achievements in the 2005 and 2018 social studies curricula. The findings revealed that the achievements in both curricula were addressed with a single discipline and an interdisciplinary approach, and several disciplines, mainly history and geography, were included. Furthermore, it was revealed that the anthropology, archeology and religion achievements were not sufficient.

Textbooks

The study findings demonstrated that there were certain problems in the textbooks published based on the 2018 social studies curriculum. Thus, it ws reported that the text, visuals and activities on environmental education were superficial, the books employed less visuals and more text, the skills included in the 2018 curriculum were not evenly distributed based on the learning area and grade level, and certain skills were more in-depth, while others were not. Also, it was reported that digital citizenship and sub-dimensions were not sufficiently addressed.

Özdemir and Gökçe (2019) conducted a study to investigate social studies textbooks based on environmental education. In the study, it was observed that the environmental education text, visuals and activities were superficial in the 6th grade social studies textbook, the content included only knowledge and action-based content and activities were neglected.

The study conducted by Kuru and Şimşek (2020) on skills aimed to compare the instruction of course-specific skills in the 2005 and 2018 social studies textbooks. The study findings revealed that more skills were required to be acquired by the students in various types of text in 2018 when compared to 2005. The textbook visuals included conceptual cartoons for course-specific skills in 2005, and there were no conceptual cartoons in 2018. The 2005 textbooks included more visuals and less text, and vice versa was true in 2018. The measurement and evaluation included open-ended questions were used in 2018 and the acquisition of more skills was aimed with these questions; however, the evaluation dimension was not adequate.

Similarly, a study conducted by Altay (2020) aimed to determine the skills included in social studies textbooks. A textbook from each of the 5th, 6th, and 7th grade social studies textbooks was analyzed. The unit of analysis was determined as the achievements. The findings revealed that social studies textbooks included better content on skills instruction when

compared to the social studies curriculum. However, these skills were not balanced between the learning areas in the textbooks. Certain skills were instructed often, while others were rarely or never instructed. It was concluded that the skills determined in the curricula were not evenly distributed among the grades.

A study conducted by Kara and Atasoy (2019) on digital citizenship aimed to investigate the social studies curricula and textbooks based on digital citizenship and sub-dimensions. The study demonstrated that digital citizenship and sub-dimensions were not adequately included in the 2018 social studies curriculum acquisitions, and the distribution of topics between the grades and learning areas was irregular.

Based on the above-mentioned data, there were certain problems in the social studies textbooks published based on the 2018 curriculum.

The citizenship dimension in 2018 social studies course curriculum

The analysis of the 2018 curriculum based on citizenship mostly revealed a traditional citizenship approach and multicultural education approach was worse than the 2005 curriculum, while another study reported that both curricula were similar. In a study conducted with pre-service teachers, there was no significant difference between their perceptions about the effects of the curricula on training active citizens. In the 2018 curriculum, citizenship was associated with digital citizenship as a skill, value and learning area.

What type of citizenship did the curriculum envisage? A study conducted by Şen (2019) attempted to determine the type of citizenship envisaged in the 2018 social studies curriculum. The findings demonstrated that the 2018 curriculum mostly reflected traditional citizenship properties, while modern citizenship properties were limited.

Öteleş (2020) conducted a study on multicultural education to determine the multicultural education content in the 2018 social studies curriculum. The study findings revealed that the 2018 social studies curriculum reflected the multicultural education approach objectives, learning areas, acquisitions, values and skills. It was observed that the inclusion of the multicultural education approach dimensions of objective, acquisition and skills were behind the 2005 curriculum in the 2018 curriculum, and was similar to the 2005 program in value dimension.

In a study conducted by Beldağ and Teymur (2018) to investigate the 2018 social studies course curriculum based on multicultural education and structured the 2018 social studies curriculum based on 7 learning areas. It was determined that most of the acquisitions in “culture and heritage”, “global connections” learning areas, and a few of the acquisitions in “active

citizenship" and "people, places and environments" learning areas were consistent with multicultural education principles. It was concluded that the multicultural education approaches in 2005 and 2018 curricula were similar.

Yiğen and Dündar (2020) conducted a study to determine the perceptions of pre-service teachers about the role of social studies course in training active citizens. The study was conducted with 400 pre-service teachers attending classroom teacher and social studies instruction departments. The study findings revealed no significant difference between the perceptions about the impact of social studies course on active citizen training in knowledge, skills and value dimensions.

The study conducted by Turan and Avcı (2018) on digital citizenship aimed to investigate the 2018 social studies curriculum based on digital citizenship. The study aimed to investigate digital citizenship based on related competencies and values, skills and achievements. The findings demonstrated that mathematics and basic, science, technology, and digital competences were associated with digital citizenship in the 2018 curriculum. The competencies included in the 2018 curriculum such as environmental literacy, financial literacy, digital literacy, legal literacy, map literacy, decision making, evidencing, location analysis, decision making, spatial perception, media literacy, political literacy, social participation, chart, graph and diagram development and interpretation, innovative thinking and temporal and chronological perception were the skills directly associated with digital citizenship. Science and honesty values were the values that could be directly associated with digital citizenship. People, places and environments, and science, technology and community learning areas were also associated with digital citizenship.

Conclusion

The 2018 social studies curriculum aimed to train individuals integrated with values and competencies, knowledge, skills and behavior. Values and competencies allow the integration between knowledge, skills and behavior. It was emphasized that the individual differences should be considered in measurement and evaluation since an evaluation system that fits all is against human nature. The curriculum included 18 specific objectives based on the general objectives and basic principles of Turkish national education. The number of skills in the curriculum increased when compared to the 2005 curriculum. It could be suggested that the number of values in the curriculum was similar to the 2005 curriculum. The implementation principles for the curriculum were included as a list. Controversial issues and digital citizenship competences were recently introduced in the 2018 curriculum. The "active citizenship" learning area was initially introduced in the 2018 curriculum.

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